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Research Report

Impact of development finance institutions on sustainable development: An essay series

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Report

Impact of development finance institutions on sustainable development

An essay series

Edited by Samantha Attridge, Dirk Willem te Velde and Søren Peter Andreasen

September 2019

ODI EDFI

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Acronyms and abbreviations

AFD	Agence Française de Développement
CDC Group	United Kingdom development finance institution (formerly the Commonwealth Development Corporation)
CGE	Computable General Equilibrium
CSR	corporate social responsibility
DEG	Deutsche Investitions- und Entwicklungsgesellschaft (German Investment Corporation)
DERa	Development Effectiveness Rating
DFI	development finance institution
DFID	UK Department for International Development
E&S	environmental and social
EC	electricity consumption
EDFI	Association of European Development Finance Institutions
EFSD+	European Fund for Sustainable Development
EHS	environmental, health and safety
EIP	European External Investment Plan
ESG	environmental, social and corporate governance
Eurodad	European Network on Debt and Development
FDI	foreign direct investment
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V (Netherlands Development Finance Company)
GDP	gross domestic product
GHG	greenhouse gas
GW	gigawatt
GWh	gigawatt hour
HIPSO	Harmonized Indicators for Private Sector Operations
HR	human resource
IFC	International Finance Corporation
IFI	international financial institution
IFU	Investment Fund for Developing Countries (Denmark's Development Finance Institution)
ILO	International Labour Organization
IMP	Impact Measurement Project
IO	input-output
IPP	independent power projects
KPI	key performance indicator
LDCs	least-developed countries
LICs	low-income countries
MDB	multilateral development bank

MNC	multinational corporation
MNE	multinational enterprise
NDP	New Development Paradigm
ODI	Overseas Development Institute
ODP	Old Development Paradigm
OECD	Organisation for Economic Co-operation and Development
PPA	power purchase agreement
PPP	purchasing power parity
PS2	Performance Standard 2
SDGs	Sustainable Development Goals
SMEs	small and medium-sized enterprises
ToC	theory of change
UNFCCC	United Nations Framework Convention on Climate Change
WAP	working-age population

Introduction and overview

Samantha Attridge and Dirk Willem te Velde, Overseas Development Institute, and Søren Peter Andreasen, Association of European Development Finance Institutions

Introduction

The emergence of the Sustainable Development Goals (SDGs) marked a change in development debates. Not only do the SDGs aim to promote an integrated approach to economic, social and environmental development, they place emphasis on a development model where the private and public sectors have complementary roles to play in supporting inclusive and sustainable growth. They also represent a major shift in the international community's strategy to achieve these Goals by recognising the central role of the private sector. Private investment and innovation are major drivers of productivity, inclusive economic growth and job creation, which are key ingredients to tackle poverty.

Given their core mandates, development finance institutions (DFIs) are set to take centre stage in contributing to this agenda. They play an important role in supporting economic growth through the mobilisation of private investment in developing countries through their financing, risk-sharing and supporting activities. As such, and as more development finance is invested in DFIs and by DFIs, they are expected to contribute to the achievement of the SDGs and are expected to provide evidence of this contribution and of the impact of private investment more broadly.

Members of the Association of European Development Finance Institutions (EDFI) jointly manage an investment portfolio of approximately $50 billion in developing countries[1] and all have in place impact management frameworks, which they use to monitor and evaluate the financial and direct economic impacts of their individual investments. They have also recently begun to examine sector-wide impacts and wider societal impacts. They are increasingly focused on improving the understanding of the impact of their investment towards the achievement of the SDGs at the economy-wide level and on better articulating and communicating such impacts to relevant stakeholders such as shareholders, investee companies and the development community.

As part of this effort and to help promote knowledge exchange and learning around the impacts of this investment on the SDGs the EDFI hosted its first annual impact conference in March 2019 in co-ordination with ODI. The conference focused on the impact of investment on jobs, energy, climate change and economic transformation. The conference was attended by 90 experts and DFI decision-makers, DFI shareholders, academic and think tank researchers and civil society stakeholders. Participants explored how DFIs are promoting impacts, current impact measurement practices, and how methods are evolving to improve understanding of impact.[2] Box 1 summarises the key conference takeaways.

To capitalise on the valuable conference discussion, participants and other experts were invited to submit short essays based on the themes of the conference. This set of essays which aims to take stock of the knowledge around the impact of DFI-facilitated investment brings

1 See www.edfi.eu/news/responsiblefinancing/

2 See EDFI (2019) for a summary of the conference discussions.

Box 1 Key messages from the EDFI Impact Conference

1. **Harmonisation when feasible**

Investors have different capacity to collect and disseminate data, but the ability of stakeholders to compare investor operations is currently hindered by different investor report styles.

2. **Understand portfolio-level climate impacts**

Project-level impact calculations may lead to suboptimal outcomes as there may be a tension between climate change adaptation, climate change mitigation, and poverty reduction.

3. **Focus on quality and decency of jobs created as well as quantity**

'Jobs created' does not offer the desired nuance of the relative impact on the job market caused by an investment or the distributional impacts of these jobs.

4. **Clearer linkages between indirect job calculations and theories of change**

Understanding indirect impacts can steer investments *ex-ante*, evaluate investments *ex-post*, and monitor and improve the impact of investments during the project – different products and models are required for these different areas.

5. **Further partnerships and knowledge sharing**

Bringing in diverse viewpoints and pursuing partnerships with those outside the immediate community allows for deeper consideration of the short- and long-term investor impact and for potential collaborations that can enhance these outcomes.

together a wide range of contributions which offer a rich array of perspectives from academics, researchers, practitioners and civil society.

Overview of essays

In bringing together this essay series we would like to take stock of DFI experience and the evidence base on DFI impact and share knowledge, using the SDGs as a framing lens, given the central role that DFIs are expected to play in supporting the achievement of the Goals. The SDGs are broad and cover multiple and interrelated areas. We chose specific areas for a deeper dive where we know DFI investment has had some proven impact on the SDGs or where DFIs have already begun to develop impact monitoring and evaluation frameworks. This essay series focuses on job creation, energy provision and combating climate change, thereby focusing on DFI impact on SDG 7 (ensuring access to affordable, reliable, sustainable and modern energy for all), SDG 8 (promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) and SDG 13 (taking urgent action to combat climate change and its impacts).[3]

There are also a range of general issues which require exploration to help advance our collective understanding of impact-cutting across these and other areas. First and foremost is the issue of measuring the indirect effects of DFI investment and its attribution. Increasing attention is being placed on understanding the economic spill over effects of DFI investment and the contribution of this to economic transformation and how to model this. Other frontier issues include understanding the impact of DFI investment on poverty and the impacts on different segments of the population. These issues are explored in Part 3 of this essay series.

3 https://sustainabledevelopment.un.org/sdgs

We invited experts to reflect on these areas and submit short essays. We have structured the essay series into three sections:

1. DFIs, job creation and decent work
2. DFIs and climate change: transformation and access to clean energy
3. Frontier issues in understanding the impact of DFI and private investment

DFIs, job creation and decent work

Jobs matter. They boost living standards, raise productivity and foster social cohesion (World Bank, 2013). They are the main route out of poverty and are mainly created in the private sector. A report by the International Finance Corporation (IFC, 2013) finds that more than nine in ten jobs are created in the private sector in developing countries. We should not be surprised therefore that EDFI members regard job creation as the main measure of their development impact and prioritise job creation which thereby contributes to SDG 8.

The jobs challenge is significant. The world needs to create an additional 30.3 million new jobs each year until 2030 to keep up with demographic changes and the number of new entrants to the labour market. Just under half of these new jobs need to be created (13 million each year) in sub-Saharan Africa (Lemma, 2019). Not only do DFIs need to target job creation, they also need to consider and improve the quality of jobs. The Decent Work agenda has come to the forefront as a key response by DFIs.

EDFI members have a key role to play by promoting private investment, with the potential to create large numbers of quality jobs directly and indirectly through the indirect effects of private investment on suppliers and economy-wide productivity. Indeed, it is estimated that EDFI-investee companies employ over two million workers directly and a further three million jobs supported indirectly (EDFI, 2017).

Four essays explore and discuss the different approaches that DFIs employ to measure their impact on job creation and decent work and discuss examples of impact in this area.

Alberto Lemma's essay sets the scene. He flags the urgent need to create large numbers of quality jobs and provides an overview of the approaches DFIs employ to measure the direct and indirect impacts of their investment on job creation. He notes that the collective investment of EDFI members supported 5.4 million jobs in 2017 or around 0.2% of the global workforce and that some DFIs have started to report distributional employment impacts, e.g. percentage of jobs going towards women and that DFIs have made strong efforts to harmonise their job creation metrics which aids understanding of impact. The author discusses the need to focus not only on the number of jobs but also on the quality of those jobs, noting positive correlations between job quality and employment rates in member countries of the Organisation for Economic Co-operation and Development (OECD). He notes that 42% of workers worldwide – 1.4 billion people – were in vulnerable employment in 2017. Counting direct job creation is relatively straightforward but understanding indirect impacts on job creation is more complex. The author discusses the difference between indirect and induced employment impacts and outlines the modelling approaches that DFIs employ to estimate these different impacts, which include model-based and tracer-based estimations. The author concludes that more robust estimation techniques are required to better estimate and attribute indirect job creation to DFI investment and understand the distribution of these jobs.

Kirsten Newitt and Alastair Usher explore the quality job theme. They argue that job quality matters for development impact and proceed to discuss the first ever study on how DFIs contribute to decent work, setting out DFI best practice in creating quality jobs, examples of which include their commitment to the IFC's Performance Standards on Environment and Social Sustainability, the application of environmental and social compliance frameworks and advisory and technical support. They discuss the challenges that many DFIs face in creating quality jobs given that they often invest in the most challenging and risky environments. They discuss best practise examples from the study of how DFIs can support the creation of quality jobs and conclude by arguing that DFIs have an important role to play in demonstrating that the generation of quality jobs is compatible with competitive business models.

Christiane Rudolph argues that skills gaps are a major constraint on business success and adversely affect economic and social development and that addressing the skills gap has multiple positive impacts at the company level, throughout the value chain and in wider community development. DEG has developed in collaboration with the Boston Consulting Group a practical guide which client companies can use to identify and assess skills gaps. The author discusses this guide, how DEG has tailored its business support services to provide its clients with finance and advice to bridge skills gaps and how this approach is having wider positive impacts throughout the value chain and in wider community development.

Wilhelm Loewenstein's academic essay argues that most of the macroeconomic modelling of labour markets in mainstream economic models ignores the existence of a large proportion of the population who live below the poverty line and derive their living in the informal sector in developing countries. This, he argues, is a fundamental difference in labour markets between high-income and developing countries. He then empirically estimates the link between investment and job creation in a cross-sectional analysis, which, subject to the assumptions of the model, can be used to assess job creation impacts of DFIs. For example, using the regression results he argues that $10 million invested in Bangladesh in 2008 created an additional 564 formal sector jobs in 2008 and 350 in 2016.

DFIs and climate change: transformation and access to clean energy

Lack of access to reliable energy supply is a major constraint to economic growth and development in many developing countries. At the same time, energy production and consumption is a major contributor to climate change. If the world is to meet the universally agreed United Nations Framework Convention on Climate Change (UNFCCC) Paris target of keeping global warming to less than 2°C, then much of this energy production and consumption will have to be clean. SDG 7, SDG 13 and the UNFCCC Paris Agreement set out the action required. The investment needed to meet these goals is enormous. For example, data from the the International Energy Agency (IEA), World Bank, the International Renewable Energy Agency (IRENA) and the Climate Policy Initiative, the United Nations Development Programme (UNDP) and UN Environment (2018) indicate that between $1.1 trillion and $1.3 trillion[4] in financing is needed annually between now and 2030 to meet SDG 7[5] alone. Currently, annual financing levels are around $500 billion per year; most of which is concentrated in developed and middle-income countries. Private investment will be key to meeting SDG 7, SDG 13 and the Paris Agreement and DFIs play a key role in incentivising and catalysing this private investment.

Most EDFI members have made policy pledges and created investment targets to support increased access to affordable and reliable clean energy (SDG7) and the implementation of the Paris Agreement under the UNFCCC. It is not surprising then that EDFI members invested €2 billion in the power sector during 2017 and the combined EDFI investment portfolio in power totalled €8.2 billion; accounting for 22% of the total EDFI portfolio.

Four essays explore and discuss what DFIs are doing to tackle climate change and discuss example case studies of impact in this area.

Samantha Attridge and Matthew Gouett set the scene and discuss how DFIs are increasingly creating investment targets to support increased access to affordable and reliable clean energy (SDG7), to combat climate change (SDG13) and to support the implementation of the Paris Agreement, noting that the range of ambition varies among EDFI members. They discuss the metrics DFIs report on, highlighting reporting gaps and the lack of harmonisation which hinders transparency and comparability. They conclude by identifying areas where EDFI members should strengthen their reporting which includes contribution of renewable energy

4 All figures in United States dollars unless stated otherwise.

5 Under a no policy-change scenario.

investment to total gigawatt hours (GWh) produced, distributional impact reporting and reporting the carbon footprint of DFI investment portfolios, as well as highlighting an agenda for independent research, which includes the impact of DFI investment on universal access and the additionality of DFI investment in clean energy.

Pierre Forestier discusses the crucial need to transform our modes of production and consumption and to transition to sustainable and inclusive carbon-free growth models. The author argues that the private sector will play a crucial role in this transition and that a fundamental shift in thinking and approach is required to re-orientate public and private investment to support this transition. The author discusses how the Agence Française de Développement (AFD) and Proparco have mainstreamed this paradigm shift by integrating the fight against climate change throughout their operations, most notably by ensuring 100% alignment of operations with the Paris Agreement, increasing the volume of climate finance, re-orientating investment flows and influencing standards and regulation. The author outlines the shift in its approach for assessment of its climate impact from assessment of an individual investment to the total carbon footprint of its operations.

Karoline Teien Blystad argues that power shortage is holding back growth in sub-Saharan Africa and that the public sector can't fully fund the immense investment required to close the investment gap. She notes the size of the challenge. Energy generation capacity in sub-Saharan Africa needs to triple from its current capacity of 103 gigawatts (GW), noting that the region, with a population of over 1.1 billion, had less capacity than Spain (106 GW) with a population of just 47 million. Private investment will be critical. The author argues that investment in independent power projects (IPPs) will be key and are one of the fastest sources of energy investment in sub-Saharan Africa. The author discusses evidence from a Norfund study which found that DFIs played a key role in crowding in private investment in IPPs by providing risk mitigation to the private sector where the off-taker lacked an investment-grade rating. The study found that IPPs increased the installed energy capacity of sub-Saharan Africa by 17% during the period 1994 to 2014 and that most of these IPPs had some form of DFI investment.

Juho Uusihakala, Teodora Nenova and Rene Kim outline the theory of change which underpins Finnfund's investment in the power sector and enables Finnfund to analyse the direct, indirect and wider impacts of its investments in power and inform its investment decisions. The theory of change has been informed by a number of studies undertaken by Steward Redqueen on the impact of Finnfunds' investment in renewable energy in Cape Verde and Honduras. They discuss the theoretical impact pathways and present the study results finding that Finnfund investment had reduced the average cost of electricity generation by 8% in Cape Verde and 5% in Honduras and reduced power outages which is estimated to have increased gross domestic product (GDP) in both countries by 0.2%. However, the studies also found that the impact of increasing installed energy capacity is limited if the price of electricity is not cost reflective.

Frontier issues in understanding the impact of DFI and private investment

This section offers a range of perspectives on frontier and general issues on DFI impact in four areas: (i) spill over effects and economic transformation; (ii) distributional impacts; (iii) DFI impact frameworks and tools; and (iv) the need for DFIs to harmonise their impact metrics.

DFIs and economic transformation

Increasing attention is being placed on understanding the spill over effects of DFI investment on the local economy and the contribution of this to economic transformation, which is defined as a long-term process of shifting capital and labour from low productivity to high productivity activities, both within and between sectors.

This is a very challenging frontier area, as *Paddy Carter* explains in his essay. He argues that the eradication of poverty will require the transformation of unproductive economies into ones capable of sustaining a decent standard of living for all their citizens. He argues that DFI investment can accelerate this process, but that it is difficult to identify the impact of an individual investment on economic transformation and

inclusive growth. He briefly discusses several approaches that can be used, arguing that DFIs must find new ways of bridging this gap as well as better ways to communicate this impact to external audiences.

Dirk Willem te Velde argues that while DFIs already contribute to the process of economic transformation, they can do more to support the process of economic transformation once the initial investment has been made by working collaboratively with others to enhance the impact of an investment throughout its life-cycle. He suggests three types of activities which DFIs should collaboratively focus on to support the transformative impact of their investment: investment co-ordination, development of linkage programmes and policy influence. He concludes that DFIs are well placed to build markets and that this requires skills beyond project finance.

Chris Isaac and Mollie Liesner argue that DFIs should target their investment in 'impact unicorns', companies that can kick-start a process of transformational change, generate over a billion dollars of value for society and lift large numbers of people out of poverty. They note that true transformation is infrequent but when it happens it can be incredibly powerful, helping to create new industries and crowd in private capital, citing case studies where transformational change has been kick-started by DFI investment. They outline how AgDevCo tracks transformational change and in a new approach to measuring the impact on transformation is experimenting with network analysis.

Michael W. Hansen argues that the development impacts of DFI blending with foreign direct investment (FDI) are fundamentally different to those impacts arising from DFI blending with other types of capital such as local firms and entrepreneurs. This is because FDI – in contrast to other types of capital – is accompanied by propriety assets and competencies. The essay discusses the potential implications of this argument for DFI strategy and methodologies to measure impact.

Distributional impact of DFI investment

Samantha Attridge and Matthew Gouett provide a short summary of their assessment of the state of the literature base on DFI impact and what it tells us. Their essay draws on an evidence assessment undertaken for the United Kingdom's Department for International Development (DFID). In their assessment they argue that we know that DFI investment creates jobs and increases the installed energy capacity of countries, which has positive direct, indirect, and induced effects but that we know much less about who gets these newly created jobs, their impact on poverty alleviation, or the affordability of the generated energy and who accesses it. They argue that this lack of understanding currently undermines the robustness of the theory of change for DFIs.

María José Romero and Jeroen Kwakkenbos discuss the important role that DFIs play in supporting the achievement of the SDGs but argue that this is a very specific role and they should not, therefore, be viewed as a panacea to all development challenges. They argue that greater understanding is required around the role of DFIs in public service delivery in areas such as health and education and that increased investment of aid in DFIs should not come at the expense of grant resource allocation for the provision of critical public services such as health and education. They argue that not enough is understood about how DFI investment supports the eradication of poverty and identify gaps in current DFI frameworks, arguing that DFIs need to strengthen their engagement and accountability to the communities affected by their investment.

DFI impact frameworks and tools

Camilla Valeur Nygaard and Michael W. Hansen argue that the 'New Development Paradigm' associated with SDGs requires new thinking and approaches about how to measure and understand the wider economic, social and environmental impacts of DFI investment. They present and discuss a new conceptual framework to capture these wider, interrelated impacts, which DFIs could use to help DFIs increase the development impacts of their investments.

Julian Frede and Elleke Maliepaard discuss how DEG uses its Development Effectiveness Rating (DERa) system to guide and manage its investments and to measure the development impact. They describe DEG's theory of change and explain how the DERa works and is linked

to the SDGs. The DERa score is an institutional key performance indicator (KPI) and they argue that by targeting the DERa score as a measure of investment performance in addition to financial indicators incentivises investment which maximises development impact.

Julian Frede argues that companies which act sustainably and are financially successful have positive economic, social and environmental benefits. A prime objective of DEG is therefore to contribute to the sustainable success of client companies. The author describes a new strategic evaluation study by DEG which defines the attributes of a sustainable and financially successful company, how these attributes can be measured and how DFIs like DEG can contribute. The author illustrates this with some investment case studies. The study also underpins DEG's theory of change and the development of its DERa.

Harmonisation

There are currently many different approaches to measuring the development impact of DFI investment. *San Bilal and Jeske van Seters* discuss this issue. They argue that in response to increased attention and scrutiny on how DFIs operate and the impact of their investments, DFIs are strengthening their impact management frameworks and capacity. However, the diversity of DFIs and their impact frameworks creates challenges and hinders comparability and credibility of impact metrics reported by DFIs. Cognisant of these challenges they argue that different harmonisation initiatives can flourish side by side, for different impact metrics at different levels and at different speeds but that these efforts should be complementary and coordinated. In this regard they argue that members of the EDFI are well placed to lead these harmonisation efforts rallying around the European Investment Plan and its European Fund for Sustainable Development (EFSD+).

Conclusions and main findings

There is no doubt that DFI investment has a positive impact on job creation. There is a robust evidence base as discussed by *Attridge and Gouett* and *Lemma*. *Loewenstein* expanded this evidence recently by exploring the link between capital investments and job creation in labour surplus in developing countries. Most DFIs report on the number of jobs created but there is growing appreciation that this does not offer the desired nuance of the relative impact on the job market or the distribution of these jobs. Further, there is a need for more robust estimation techniques to be developed to better estimate indirect job creation and to better understand the attribution of this to DFI investment. Some examples such as those by Finnfund described in this essay series are going in the right direction, by developing a theory of change from power investments to job creation.

There is also increasing recognition that it is not just the number of jobs that is created that matters for social and economic development but also the quality of those jobs as argued by *Lemma, Usher and Newitt*. EDFI members are engaging in the decent work agenda and play an important role in demonstrating that the creation of quality jobs need not come at the expense of profits, rather proving the positive relationship between job quality, productivity and profitability.

It is clear that DFI investment has beneficial spill over effects on the wider economy. There is a need to move beyond narrow impact metrics such as job creation to also improve our understanding of the wider macroeconomic and transformative impacts of DFI investment as argued by *Carter*. Not only do DFIs need to better target transformative investment as argued by *Isaac and Liesne*r but they need to do more to support the process of economic transformation post-investment by collaborating with others to coordinate investment, develop linkage programmes and influence policy as argued by *te Velde*.

While it is clear that investment supported by DFIs has numerous micro- and broader macroeconomic impacts widely discussed through the essays *(Attridge and Gouett, Blystad, Carter, Hansen, Issac and Liesner, Lemma, Newitt, and Usher, Nygaard and Hansen, Rudolph, Uusihakala and Kim*) there is a need to better understand the impact of DFI investment on inclusive growth and how it impacts different segments of the population (*Attridge and Gouett, Carter, Lemma, Romero and Kwakkenbos)*.

Private investment will be key to combating climate change and meeting the climate-related SDGs 7 and 13. DFIs have and will play a key role in incentivising and catalysing the investment required to transition to sustainable and inclusive carbon-fee growth models *(Attridge and Gouett, Blystad, Forestier, Uusihakala and Kim)*. Most EDFI members have made pledges to target investment which combats climate change and/or supports the achievement of SDGs 7 and 13 and are gearing up their investment to combat climate change. But there is room for DFIs to improve and harmonise impact reporting in these areas which will help DFIs better tell their impact story *(Attridge and Gouett, Bilal and van Seters)*.

EDFI members are strengthening their impact management frameworks, tools and capacity *(Bilal and van Seters, Frede and Maliepaard, Frede, Rudolph)* and efforts are underway by DFIs to harmonise their impact metrics which will help the comparability and credibility of impact metrics reported by DFIs *(Attridge and Gouett, Bilal and van Seters, Lemma)*. EDFI members are well placed to lead these efforts spurred by the new European Investment Plan and its EFSD+ (*Bilal and van Seters*). Indeed, in May 2019 EDFI members agreed to the EDFI harmonisation initiative[6] where all members will work towards the development and adoption of common definitions and methodologies to measure their impact on the SDGs. This will enable comparability and give a much clearer picture of the contribution of DFI investment to the SDGs.

These essays show that EDFI members have in place well-developed frameworks and tools to help them monitor and evaluate the financial and direct economic impacts of their investment. Impact at the micro level is well understood and advanced. At the macro level the essays also show that the DFI literature is catching up with the more developed literature base on the macro impact of aid, FDI and trade. Exciting new work is underway to better understand sector-wide and wider societal impacts of DFI investment. This work will be key to helping advance our collective understanding and informing investment decisions to maximise development impact. Efforts should be made to support this work by funding more independent and academic research.

Key messages

The following key messages emerge from this essay series:

- The SDGs have set an ambitious agenda which now frames all development efforts, including those by DFIs who have a central role to play in supporting economic growth and job creation through the mobilisation of private investment in developing countries.
- DFI and other private investment has a positive impact and is supporting the achievement of the SDGs. There is already a growing evidence base on how DFIs contribute to specific SDGs such as SDG 7 (ensuring access to affordable, reliable, sustainable and modern energy for all), SDG 8 (promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) and SDG 13 (taking urgent action to combat climate change and its impacts).
- EDFI members' annual investment is growing rapidly. Collectively they invested €8.0 billion in 2018 and the level of investment is set to increase. At the end of 2018 EDFI members had a combined investment portfolio of €41.2 billion. It is estimated that this investment has directly created over 2 million jobs and further supported the indirect creation of 3.4 million jobs annually, representing 0.2% of the global workforce.
- There is significant potential to harmonise impact measurement and reporting among DFIs and to share these approaches with private impact investors.
- Exciting new efforts are emerging to measure wider impacts, directly on job quality (by the Netherlands Development Finance Company, FMO) and indirectly on job creation informing the development of theories of

6 See www.edfi.eu/news/responsiblefinancing/

change for power investments (Finnfund). However, more can be done, and we should be careful assessing the wider impacts on economic transformation.

- Ambitious activities to measure portfolio climate impacts are being undertaken by FMO and Proparco.
- There is a strong literature base on the micro impacts of DFI investment and efforts are underway to better understand the wider macro impact. These efforts should be supported by more academic and independent research and increased funding should be made available.
- Future work needs to: deepen job and transformation impact measurement, as well as distributional impact measurement; extend climate impact measurement across all EDFI members; and strengthen efforts to harmonise and collaborate across EDFI members.

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Part 1 DFIs and job creation and decent work

1 Direct and indirect impacts of development finance institutions on job creation and decent work

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Abstract

Development finance institutions (DFIs) contribute to the United Nations' Sustainable Development Goals (SDGs) by promoting private investment. This investment has the potential to create large numbers of quality jobs directly and indirectly through the spill over effects of private investment on suppliers and economy-wide productivity. This essay examines the direct and indirect impact of DFI investments on job creation, identifying areas that merit further research and evidence.

Introduction

SDG 8 aims to 'promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'.[1] To achieve this goal by the 2030 deadline, an additional 35,000 jobs need to be created each day in sub-Saharan Africa – that is 13 million each year. India alone needs to create 7.4 million new jobs each year. However, only two-thirds of the additional jobs needed annually were created between 2003 and 2016. We are off track and there needs to be a 50% increase in job creation to meet demand and achieve SDG 8.

It is not enough to consider the number of jobs, we also need to improve the quality of jobs. The International Labour Organization (ILO) estimates that approximately 42% of workers worldwide – 1.4 billion people – were in vulnerable employment in 2017. For developing countries, the proportion of vulnerable workers increases to 76% (ILO, 2018).

DFI investment contributes to SDG 8 through the direct effects on the quantity or quality of jobs created, and the indirect effects of the investment resources across the economy. It is worth looking at each of these in turn.

Direct impacts of investments on job creation

As noted, it is important to focus on both the quantity and quality of jobs. The Organisation for Economic Co-operation and Development (OECD) argues that there are no major trade-offs between creating more jobs and focusing on the quality of jobs. The OECD notes, in fact, that there are synergies between the two aspects: OECD member states that have jobs of good quality have also had higher employment rates (OECD, 2014).

Ergon Associates et al. (2019) cite three compelling reasons, at the firm level, to focus on job quality:

- improving access to export-oriented markets and international finance by meeting the requirements of key standards
- improving productivity through better work conditions, and
- reducing skills shortages by retaining staff and increasing the attractiveness of a firm for workers.

Members of the Association of European Development Finance Institutions (EDFI) are

1 See https://sustainabledevelopment.un.org/sdg8

engaging in the decent work agenda around environment and social (E&S) compliance, engagement with clients, financial markers, partnership, and demonstration effects. The CDC Group, for example, states that its decision-making process prioritises investments in sectors that lead to jobs, using a Development Impact Grid where employment generation is one of the two criteria used to approve (or reject) an investment. Deutsche Investitions- und Entwicklungsgesellschaft (DEG) uses its recently introduced Development Effectiveness Rating (DERa)[2] evaluation toolkit to assess the *ex-ante* employment creation potential of investments. As part of the investment process, Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO) investments must meet development impact criteria, which include employment impacts (FMO, 2018a). FMO's *ex-ante* impact methodology tracks 'jobs supported' as one of two development impact indicators (FMO, 2018b).

DFIs report direct employment creation as a result of their investments through annual development impact reports. All EDFI members, for example, report 'direct jobs' as a joint EDFI indicator that eliminates double-counting of direct jobs from co-invested projects. Specifically, both Denmark's Investment Fund for Developing Countries (IFU) and Spain's Compañía Española de Financiación del Desarrollo (COFIDES) track direct employment creation for total commitments. Other DFIs, such as FMO and CDC Group provide more disaggregated information showing employment by geographic region and investments sector (i.e. energy or financial sector investments), among other metrics. Some DFIs also report distributional employment impacts, with Proparco and Norfund illustrating the percentage of jobs going towards women.

To improve their employment impact reporting, DFIs have made strong efforts to harmonise the indicators they use, especially in light of their adherence to the varied multilateral initiatives that promote the pursuit of the SDGs. One prominent example is the Harmonised Indicators for Private Sector Operations (HIPSO): a set of 38 indicators agreed by a group of 25 international financial institutions (IFIs). More strategic harmonisation efforts are also underway through EDFI's 'Principles for Responsible Financing' (EDFI, 2009).

DFIs have managed evaluations that aim to help them understand the direct employment impacts of their investments. DEG, for example, commissioned a set of studies to assess employment effects, including a study that examined a DEG loan (in syndication with FMO and Citibank) for a Chinese textile manufacturer, finding that the investment helped to increase the workforce by around 30% (DEG and BCG, 2016).

A case study of a joint CDC Group and International Finance Corporation (IFC) investment to provide small- and medium-sized enterprise (SME) finance for an Indian bank found that every $1 million of SME loan financing created between 10 and 15 jobs directly in fund-client SMEs (Khanna and Kehoe, 2017). An evaluation of Swedfund's direct employment impacts compared *ex-ante* and *ex-post* data from portfolio case studies and found that its newer equity and loan investments in Africa had a significant and direct employment generation capacity (Spratt et al., 2018).

One study of DEG investments in a garment manufacturer in India found that the company paid wages that were, on average, 20% higher than the national minimum (Dangelmaier, 2015). Another study from DEG found that DEG investments supported a 39% growth in decent jobs within a Peruvian agricultural exporter firm (Dangelmaier, 2018).

Case studies can also provide short online highlights of investments, such as one carried out by the CDC Group (n.d.) on the job quality impact of one of its investments in a Bangladeshi electronics manufacturer where technical assistance from CDC Group was found to have helped to improve working conditions and gender equality in the firm.

2 See essay 17 by Julian Frede which discusses the DERa.

Indirect impacts of investments on job creation

Two core concepts matter for the measurement of indirect employment effects. The first is defined by the IFC (2013) as 'employment changes in suppliers and distributors' of the beneficiaries of investment. One example of this indirect employment channel is DFI direct equity investments into a firm which helps to increase investee productivity and profitability. This leads to larger purchase volumes from local firms within their supply chains, and, therefore, the generation of jobs within these chains.

The second impact channel is the *induced employment* effects: the 'jobs resulting from direct and indirect employees spending more and increasing consumption' (IFC, 2013). These are the jobs generated as a result of the additional purchases or expenses made by the (net) additional direct and indirect jobs supported by DFI investments.

DFIs estimate their indirect impacts on jobs through model-based and tracer-based estimations. Model-based estimates, such as input-output (IO) tables, associated Social Accounting Matrices (SAMs), and multiplier-based analyses are based on the use of econometric models to estimate employment generation. Tracer studies, on the other hand, follow the investment throughout a supply chain to count the actual jobs created in the investee firms and within relevant firms throughout its supply chain.

CDC Group uses the IO approach through its 'Lean Data' methodology (MacGillivray et al., 2017) and FMO (2016) through its 'Impact Model'. FMO uses the IO methodology to estimate the direct and indirect employment effects of its infrastructure, manufacturing and service-sector investments. The study found that every €1 million invested created an estimated 370 jobs if invested in the transport sector, 85 in the telecommunication sector, and 420 in the manufacturing sector.

Examples of studies that assess the impact of DFI investment on macroeconomic production include a set of studies that looked at the effects of DFI investments in energy in the Philippines (Steward Redqueen, 2015), IFC energy investments in Turkey (Steward Redqueen, 2017a), IFC investments in energy in Bhutan (Datta et al., 2012) and Private Infrastructure Development Group (PIDG) investments in energy in Senegal (Steward Redqueen, 2017b).

Case-study approaches focus on the employment impacts of individual investments. For example, Scott et al.'s (2013) study on Bugoye hydropower plant in Uganda uses the IFC (2013) toolkit to estimate employment effects. It finds that the power plant would have contributed to the creation of between 8,434 and 10,256 jobs through the wider effect of supplying approximately 2.9% of Ugandan energy between 2009 and 2012.

The 2013 *Jobs Study* by IFC proposes quantitative methods that could be used to estimate the private sector's contribution to employment (IFC, 2013). Micro case studies are presented that estimate the number of direct and indirect jobs created per $1 million invested by the IFC. These studies use a mixture of multiplier analysis, IO analysis and more to estimate the indirect employment impacts of IFC investments. The IFC also presents the study as a toolkit of methodologies that other financial institutions could use to evaluate their own impacts.

Some DFIs use econometric studies to assess employment impacts at the sectoral level. For example, FMO carried out an assessment of the induced employment impacts of its energy sector investments. This assessment found that by the end of 2014, 21 FMO projects were producing energy for a total of 10,353 gigawatt hours (GWh) per year and estimated that this energy would support a total of 106,000 direct and indirect jobs (FMO, 2015).

What do we know, and what don't we know?

DFIs put a lot of effort into understanding their employment impacts and often drive innovations in the (employment) impact-evaluation field. In 2015, ongoing investments by EDFI members were estimated to have contributed to 4 million jobs, by 2017 this had increased to 5.4 million, with approximately 2 million direct and 3.4 million indirect jobs supported by these investments.

We still do not know, however, whether we can be confident in attributing employment effects solely to DFI investments, rather than other

factors such as changes in market conditions. We need more robust estimation techniques and further disaggregation on the types of jobs being tracked. This requires DFIs to gain tangible support, in terms of resources and specialised personnel, to effectively track such impacts.

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2 Decent work and development finance

Kirsten Newitt and Alastair Usher, Ergon Associates

Abstract

The Association of European Development Finance Institutions (EDFI) and Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V (FMO) launched the report *Decent work and development finance* in 2019. The report is the first of its kind to set out the best practices of development finance institutions (DFIs) in relation to the principle of job quality. This essay summarises the main findings, outlining what job quality means in the field and how it can be supported.

Introduction

EDFI members share an explicit development mandate that underpins their investment strategy. This includes a strong focus on economic growth and regards job creation as a pathway to poverty reduction. EDFI-financed businesses employ over two million workers directly, with a further 3 million jobs – at least – supported indirectly (EDFI, 2017).

There is increasing recognition that the *quality* of these jobs matters for development. Where productivity is low, conditions insecure and incomes inadequate, the positive development impact of creating and sustaining employment is constrained and can even be undermined. In recognition of this, EDFI commissioned Ergon Associates to write a report on best practices in the creation of quality jobs (EDFI, 2019).

Commitment and operationalisation of decent work

Support for the decent work agenda has emerged as a prominent element of EDFI's commitment to progress towards the Sustainable Development Goals (SDGs); with a particular emphasis on SDG 8 and its focus on decent work and economic growth. The concept of decent work, developed by the International Labour Organization (ILO), takes into account both the *quantity* and *quality* of jobs. Because the decent work agenda is so expansive, the concept of 'job quality' has emerged as a way to operationalise and understand impact at the level of the individual workplace.

This can help EDFI members to pay greater attention to the *characteristics* of jobs in the workplace. While there is no formally agreed definition of 'job quality' at the international level, it can be understood to cover:

- pay and other rewards
- intrinsic characteristics of work
- terms of employment
- health and safety
- work–life balance
- voice and agency.

Challenges in the promotion of job quality

EDFI members often make investments in the most challenging and risky environments where other investors are reluctant or unable to invest. Given the nature of their mandates and financing activities, EDFI members face (by design) four significant challenges in their efforts to promote job quality:

- EDFI members focus their investment on the poorest countries where there are typically

weaker governance and enforcement mechanisms and where there are fewer jobs in the formal sector.
- They invest at the enterprise level which makes it difficult to affect change where poor working conditions are the norm in a sector; e.g. long working hours or low wages.
- Businesses and policy-makers may have concerns about the impact of a 'job quality' agenda in fragile labour markets; concerns that are related to price competition and possible tensions between job quality and quantity.
- EDFI members may have limited visibility of labour risks in their portfolio by virtue of the project activities where infrastructure is constructed by contractors and sub-contractors, and by the structure of transactions themselves where debt or equity are intermediated by funds or financial institutions.

Best practices of EDFI members that support job quality

The report provides examples of how EDFI members can address these challenges and establish a demonstration effect in and through their portfolio businesses. In developing more robust people-management systems and making judicious investment in human capital, EDFI members can demonstrate that a focus on 'job quality' can go hand in hand with – and indeed boost demand for – job creation and skills development.

One of the main channels by which EDFI members promote job quality is through a firm commitment to the International Finance Corporation's (IFC) Performance Standards on Environmental and Social Sustainability. Performance Standard 2 (PS2) on Labour and Working Conditions is the primary standard that guides EDFI relationships with clients on decent work and job quality. EDFI clients are required to apply PS2 to their direct workforces and ensure that their contractors have systems in place to apply PS2 to their own workers.

All EDFI members have processes in place to assess environment and social (E&S) risks and impacts related to their investments, including those that relate to labour and working conditions. Identifying and mitigating the risk of non-compliance with labour standards is key for members, as nearly every transaction will entail at least some impact on jobs. Labour-rights abuses can constitute restrictions on fundamental, internationally recognised human rights, and labour risks can threaten operational continuity and the reputation of both EDFI members and their clients.

Beyond E&S compliance frameworks, EDFI members have adopted a range of practical measures to catalyse positive change within their clients and the markets in which they operate.

EDFI members have engaged with clients through advisory support and technical assistance to clients to introduce or strengthen workforce management systems. CDC Group, for example, has supported RFL Electronics Ltd. (REL) in Bangladesh, where advisors provided trainings and workshops that enhanced the company's know-how to help it develop its employment policies and procedures. This resulted in changes to the management of overtime, the reduction of daily working hours (while maintaining workers' pay), improvements in working conditions for contracted workers, improved grievance mechanisms, the expansion of training and awareness on harassment and gender issues, and the clarification and expansion of policies and procedures on health and safety.

EDFI members have engaged with financial markets through private equity funds and financial institutions. Members collaborate increasingly with these actors to raise awareness of labour-rights concerns, offering training and guidance materials to boost the capacity of fund managers and financial institutions to manage labour compliance risks. One example was a sector initiative in Bangladesh in 2016 and 2018 by FMO, Oesterreichische Entwicklungsbank (OeEB), Deutsche Investitions- und Entwicklungsgesellschaft (DEG) and Proparco to build local capacity, to strengthen E&S knowledge, including PS2 requirements, as well as to provide training sessions for banking officials.

There is also engagement with partners. EDFI, itself, offers an important platform for dialogue and cooperation between members, as well as with other (multilateral and bilateral) development finance institutions. Dialogue with trade unions is another means used by some European DFIs

to increase their contribution to the decent work agenda, while a number have sought to establish partnerships with private sector actors, experts, or civil society organisations to increase their impact.

Conclusion

There is an important role for EDFI members in demonstrating that decent jobs are compatible with competitive business models. This can lead to market transformation and a better mutual understanding of challenges, objectives and areas of common interest between members and key stakeholders. The benefits include normalising respect for labour rights as standard terms of business in emerging and developing markets, guiding and developing the people-management systems and capacity of clients, and driving enhancements to job-quality measurement frameworks; all of which can enable consistent and streamlined assessment of job quality throughout EDFI portfolios.

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3 From study to solution: bridging the skills gaps

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Abstract

Jobs are the best way out of poverty! As well as providing an income, a job opens up the possibility of a self-determined life. However, a lack of qualifications and skills is often an issue for people in finding the right jobs and for companies in finding the right people. Job creation is one key objective of development finance institutions (DFIs) and a vital contribution to Sustainable Development Goal (SDG) 8 on decent work and economic growth. As a DFI, Deutsche Investitions- und Entwicklungsgesellschaft (DEG) has taken up this issue by undertaking a comprehensive study to collect examples of good practice and develop a three-step approach for companies to address skills gaps in the workforce, along the value chain, and at community level. DEG has drawn on the findings to tailor its own business-support services and aims to provide private sector clients with finance and advice to help them bridge the skill gaps.

Introduction

More than 200 million people are looking for jobs. While they search, companies complain that it is difficult to fill vacant positions or find suitably skilled staff. These skills gaps – the gaps between the skills needed for a job and the capabilities of the workforce – represent a major constraint on business success for companies, but also on wider social and economic development, particularly in developing countries. Ways in which entrepreneurs can close these skills gaps through appropriate measures implemented across their workforce, their suppliers, and their local communities lie at the heart of the study *Bridging the skills gaps in developing countries: a practical guide for private sector companies* by DEG in cooperation with Boston Consulting Group (DEG, 2016a). The study is a contribution from the Association of European Development Finance Institutions (EDFI) within the framework of the international 'Let's work partnership'.[1]

A proven win (company), win (people), win (communities)

The study emphasises a clear win-win-win situation: measures to bridge skills gaps benefit not only employees but also companies and their immediate environment. They boost staff productivity, product quality, innovation, job security, employee satisfaction and motivation, as well as a company's image.

In addition, bridging skills gaps along the value chain leads to lower purchase prices for production materials and smoother workflows. Ultimately, bridging skills gaps in local populations means a stronger anchoring of businesses within communities and, subsequently, a wider acceptance across society. Based on this understanding, our approach to bridging the skills gaps is clustered into three analytical frameworks, targeting three different levels: within the company's own current and prospective workforce; along the value chain

1 https://letswork.org

Figure 1 Why skills matter

Workforce development

- Increased productivity of employees
- Higher production quality
- Increased ability to adopt new production technologies
- High innovation levels
- Larger internal talent pool for management
- Larger pool of prospective workers
- Improved work safety
- Increased employee satisfaction and motivation
- Higher retention
- Easier access to markets
- Lower operational risk
- Enhanced company reputation
- Improved government and community relations

Value-chain development

- Higher quality of supplies
- Improved timelines and reliability of supplies
- Lower input costs through higher productivity
- Enhanced company reputation as a customer of suppliers
- Increased bargaining power through increased number of potential suppliers
- Lower reputational risk through improved work safety
- Access to markets, higher sales and after-sales revenues through better qualified distributors

Community development

- Better community relations and securing of social licence to operate
- Improved government relations
- Enhanced company reputation
- Improved long-term supply of employees

Source: DEG (2016a).

for suppliers and clients; and in the broader community (Figure 1).

Regarding workforce development, the study collected successful approaches along the entire value chain of human resources in the areas of planning, recruitment, performance management, apprenticeships and training, staff involvement/retention, and leadership. It demonstrated how skills gaps can be bridged successfully in ways that go far beyond training measures.

Starting point – collection of good practices

Examples of good practice can be found all over the world. The study took the effort to collect more than 60 examples where bridging the skills gaps resulted in workforce, supply-chain and community development. In Bangladesh, for example, a leading manufacturer of ready-made garments in the low-to-medium price sector had a skills gap in production mid-management. Its line supervisors and line chiefs required a deeper understanding of modern production layout and techniques, and a technical understanding of the different machines, as well as strong leadership and communication skills. By addressing these skills gaps, the company experienced a substantial increase in productivity and quality and its employees benefited from higher wages and skills development. In the community, the company financed education for local children and increased employability of young women from local villages which resulted in higher family incomes and better health (DEG, 2016b).

In Brazil, a private hospital operator had difficulties recruiting and retaining low-to-medium-qualified operational workers – those involved in auxiliary medical tasks, nursing work, and technical support functions. The company's measures to address these skills gaps enabled it to maintain its high-quality standards and fill positions internally. For its employees, these initiatives helped improve their career

prospects and increase their salaries. By involving employees in its community development initiative, the company not only realised the initiative at low cost but also instilled a sense of pride among its employees. For the community, the neighbourhood qualification project boosted local employment and the training of healthcare professionals contributed to improvements in Brazil's public healthcare system (DEG, 2016c).

A three-step approach to assess and bridge the skills gaps

DFIs know that enhancing skills and bridging supply and demand are crucial to success for any company and for wider society. To better support its clients, DEG – within the framework of the study – has developed a three-step approach to help companies assess and bridge their skills gaps.

1. First, a practitioner's guide shows companies how to identify their skills gaps both qualitatively and quantitatively, how to analyse their root causes, and how to address them adequately and efficiently. It also showcases the benefits for companies, employees and communities.
2. Second, a self-assessment tool provides management with an initial analysis of their skills 'situation'.
3. And third, various assessment methods are deployed for more detailed analysis.

This three-step approach allows companies to concentrate their activities on the business-critical issues. It has been tested and optimised in several case studies from DEG's portfolio: in addition to the Bangladesh and Brazilian examples, studies have also been undertaken in Mexico, Namibia, Pakistan, South Africa and Sri Lanka.

Conclusion

Within its technical assistance programme, Business Support Solutions, DEG has taken up the three-step approach developed in the study. It supports its portfolio companies in the process of detecting and bridging their skills gaps with finance and advice. Our support is enabling companies to address critical needs, which not only benefits companies and their employees, but also has wider positive impacts through value-chain and community development.

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4 How private investment creates decent jobs in low- and middle-income countries: a new framework to measure the impact

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Abstract

Unlike high-income countries, where there is no absolute poverty, low- and middle-income economies are characterised by significant shares of the population living below the poverty line and working in the informal sector. The presence of an invisible and poverty-stricken informal sector in developing countries – ignored by most macroeconomic literature – is the most glaring contrast between high-income and low- and middle-income countries. It has a major impact on the functioning of the macroeconomic labour market in developing countries, as the labour demand of the modern sector, comprising agribusiness, manufacturing, banking etc., can draw on a perfectly elastic supply of labour from the poverty-stricken informal sector. Informal sector production includes subsistence agriculture, petty trade, day labour and other low-productive activities, which are fructified neither by capital nor by total-productivity growth and generate a bad and volatile pay. Informal workers who want higher wages switch from informal to modern sector employment whenever there is a vacancy. Modelling suggests that growth in developing countries is endogenous, capital and labour have no diminishing returns and per-capita incomes move along a steady-state growth path. Net investment widens capital as it creates new modern sector jobs, and poverty is reduced as the new jobs provide incomes above the poverty line. Empirical testing based on panel data from 73 low- and middle-income countries from 1990 to 2011 supports these suggestions.

Introduction: labour-market effects of private investment in mainstream models

Mainstream economic models abstract from differing realities in high-income and in developing countries and assume – in line with general equilibrium theory – that all markets function smoothly everywhere. In such models, there is no involuntary unemployment, capital is spread evenly across the fully employed labour force and, during a transitional period, investment leads to a rise of the capital stock per worker (capital deepening), to increase labour productivity and wages (Solow, 1956).

Under full employment, however, additional new jobs can only be created to the extent to which increased wages attract new workers. Otherwise, mainstream models suggest that investment-induced new jobs must replace old jobs, meaning that the net effect of private investment on job creation must be zero in the long run. The level of employment, therefore, cannot depend on investment but on the natural employment rate and is determined by the number of people who want to work (Krugman, 1993; Mussa, 1993). This implies that any attempt to estimate the job-creation effects of private investment based on mainstream theories is a mission impossible.

A disequilibrium model for growth and employment dynamics in developing countries

Borrowing from Loewenstein and Bender (2017) and against the neoclassical mainstream, I conceptualise developing countries as being similar to high-income countries in some respects, but very different in others. Similarities include a well-observed and poverty-free modern formal sector, an unobserved and poverty-free modern shadow economy (where firms and workers conceal their market-based legal production from public authorities to avoid taxes and regulations), and an unobserved illegal sector where economic activities are forbidden by law. In high-income countries, one-third of the working-age population (WAP) is outside formal employment and absolute poverty does not exist, while more than two thirds of WAP in low- and middle-income economies are outside formal employment and significant shares of the population live below the $2 (PPP)[1] a day poverty line and work in the informal sector. The existence of an unobserved, unregulated, unreached and poverty-stricken informal sector in developing countries – ignored by most macroeconomic literature – is the most important dissimilarity between the two country groups.

I propose a model framework to close the knowledge gap on this dissimilarity. This argues that a well-observed modern formal sector in developing countries interacts with the unobserved poverty-stricken informal sector via the labour market.[2]

The formal and the informal sector produce substitutional outputs, and labour is homogeneous. The formal sector produces output combining capital with formal sector labour at a given level of total factor productivity. The modern sector of developing countries has a high capital intensity[3] that is similar to the capital intensity found in high-income economies. Reflecting the marginal productivity of labour, modern sector workers earn a wage well above the poverty line. Formal sector output generation is represented in equation 1 by a conventional linear homogeneous production function that, in principle, has the standard neoclassical properties.

Equation 1: Formal sector output generation

$$(1) \quad Y^f = (A^f K^f)^a L^{f(1-\alpha)}$$

In contrast, the informal sector's output is produced solely by using labour as an input. As a result, its productivity is low, and per capita income in the informal sector remains below the poverty line. This supports the proposition that in the presence of some type of labour market failure, a considerable wage differential between the formal and the informal sector persists.

Such failure stems from informal sector poverty. Given that even in middle-income countries 10–30% of the population live below the poverty line of $2 a day (PPP) and that this share rises to above 60% on average in low-income countries, the formal sector in these countries can draw on a large supply of labour from the informal sector. As labour supply relative to labour demand is small, the market-clearing wage[4] is near to zero. If informal sector workers earn an income (y^i) that enables their families' subsistence, they are unwilling to work in the formal sector if they will still be paid the lower market-clearing wage (i.e. as long as $w^f < y^i$). This means that per-worker informal sector income plays the same role as a formal sector reservation wage[5] (w^{res}) and that, for $w^f > w^{res} = y^i$, formal sector firms are confronted with an unlimited supply of labour from the informal sector.

1 Purchasing power parity. Employment data are taken from ILO and WIEGO (2012), poverty data from World Bank (2014).

2 The model does not include the unobserved shadow economy, which is also part of the modern sector. This omission, however, does not compromise the presented theoretical or empirical results.

3 The amount of fixed or real capital present in relation to other factors of production, especially labour.

4 The price by which the supply of whatever is traded equates to the demand, so that there is no leftover supply or demand.

5 The lowest wage rate at which a worker would be willing to accept a formal sector job.

Equations 2 and 3 demonstrate that in such settings, labour demand from formal firms determines formal sector equilibrium employment. In other words, the growth of employment in the formal sector is driven by the sector's capital-stock growth and that investment is capital widening.[6]

$$(2) \quad L^f = L^{fD} = A^f K^f \left[\frac{(1-\alpha)}{w^f}\right]^{\frac{1}{\alpha}}$$

$$(3) \quad gL^f = gA^f - \frac{1}{\alpha} gw^f + gK^f$$

The two equations illustrate why private investment creates decent jobs in developing countries. As long as a poverty-stricken informal sector exists in these countries, the formal sector wage is determined by external forces and the formal sector labour market fails to clear. This implies the absence of diminishing returns to capital and labour, employment growth within the formal sector that is driven from within and the additionality of foreign private investment, which fuels the growth of the formal sector capital stock and translates into an equally large growth in formal sector employment.

Estimating the effect of private investment on the creation of better paid (decent?) jobs

Equation 3 has been tested using panel data from 73 low- and middle-income countries from 1990 to 2011. For these countries, the data were taken directly from, or constructed from, publicly available databases. The robust regressions show that the size and the signs of the coefficients of the formal sector capital stock growth rate are as suggested by equation 3. The regression results further suggest that formal sector capital stock growth translates one-to-one into formal sector job growth (the estimated coefficient is one), which, as the estimates imply, is slowed by the externally driven growth of the formal sector wage rate.[7] These results allow for country- and time-specific estimations of the attributable and long-lasting impact of formal sector investment on formal sector employment by enabling workers to shift from badly paid informal jobs to better-paid jobs in the formal sector.

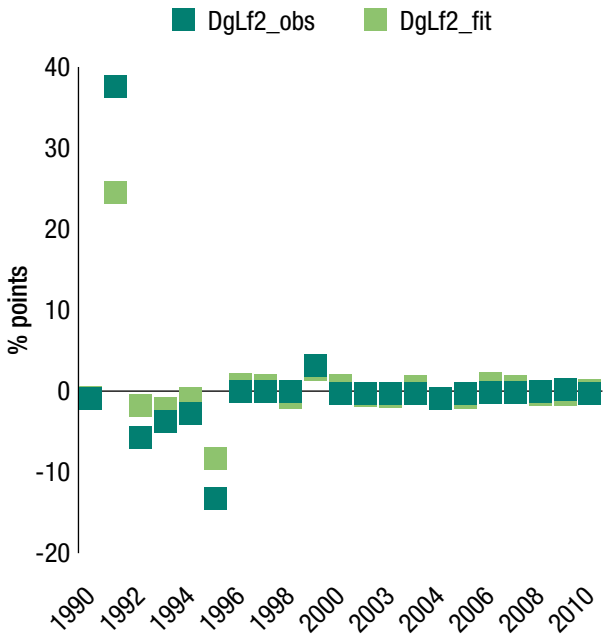
The proposed model in action

As an example, the job effects of investing $310 million in Bangladesh and in Brazil in 2008 or in 2016 are shown in Figure 3. Four steps are needed to measure these effects.

Step 1: Use the regression results to calculate the country- and time-specific fitted annual changes in formal employment growth, and inspect differences between observed (DgLf2_obs) and fitted changes (DgLf2_fit), as shown in Figure 2.

Step 2: Take the observed formal sector employment of a start year, apply annual employment growth rates that are derived from fitted changes of the employment growth rates and calculate the formal sector employment for each year. The country-specific level of formal sector employment, calculated for 2008 and

Figure 2 Bangladesh – annual change in modern sector employment growth



6 This is where the stock of capital is increasing **at the same rate as the labour force**, and the capital per worker ratio remains constant.

7 Details about the estimation approaches and results can be found in Loewenstein and Bender (2017).

2016, results from the factual capital stock size of the respective years. It includes the invested $10 million.

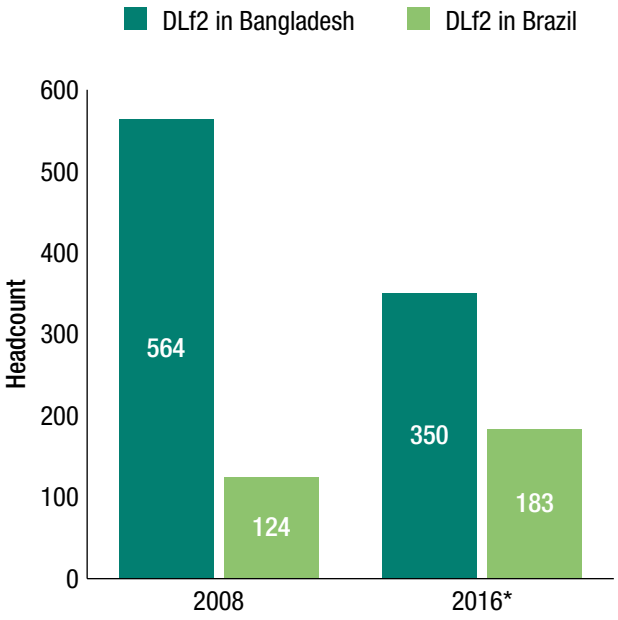
Step 3: Subtract the $10 million from the country-specific capital stock of 2008 and of 2016, respectively, to get the counterfactual sizes, growth rates and changes in the growth rates of the capital stock and of formal sector employment for each of the two years.

Step 4: For both years, calculate the creation of formal sector jobs by development finance institutions subtracting the counterfactual formal sector employment (step 3) from the factual formal sector employment (step 2).

Result: We find that an investment of $10 million would have created 564 additional formal sector jobs (DLf2, see Figure 3) in Bangladesh in 2008, while investing the same amount in 2016 would have created 350 new jobs there. Following the above described procedure for Brazil shows that investing $10 million in 2008 would have increased formal employment by 124 jobs, while the same investment in 2016 would have created 183 jobs in that country.

The counts differ between countries and within time as they mirror differences in the countries' production structures as well as in the dynamics of growth. Investing $10 million in Bangladesh creates many more modern jobs than investing the same in Brazil, as the capital intensity in the latter is twice that of the former. However, between 2008 and 2016, growth in Bangladesh was quite dynamic as compared to Brazil, where the fast growth of the modern sector wage was a burden for job creation. This explains why the job effects of investing $10 million in Bangladesh are lower in 2016 in comparison to 2008 and why the opposite holds for Brazil.

Figure 3 Additional modern sector jobs in Bangladesh and Brazil created from investing $10 million



*based on extrapolation.

Conclusion

The proposed growth model for developing countries suggests that private investment creates new and additional jobs that absorb badly paid informal workers who want better-paid employment in the formal sector. Empirical evidence supports this suggestion and allows for the quantification of country- and time-specific employment impact of private investment at an aggregate level. As theory and evidence suggest the absence of diminishing returns in developing countries, future research on modified input-output approaches may be fruitful to investigate such job effects at the sectoral level.

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Part 2 DFIs and climate change: transformation and access to clean energy

5 Understanding the impact of development finance institutions in catalysing private investment to tackle climate change and increase access to energy

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Abstract

Development finance institutions (DFIs) have an important role to play in helping countries catalyse the private investment required to meet the United Nations' Sustainable Development Goals (SDGs); specifically, SDG 7 on access to energy and SDG 13 on climate action. To better inform stakeholders of the contribution and effectiveness of their work, DFIs must provide meaningful metrics that allow comparison among DFIs and among their investment opportunities.

Introduction

Lack of access to reliable energy supply is a major constraint to economic growth and development in many low- and middle-income countries. It is not surprising, therefore, that the energy sector is the second largest investment sector in the combined investment portfolio of members of the Association of European Development Finance Institutions (EDFI), with the bulk of investment going to renewable energy and efficiency projects.

In 2017, EDFI members invested €2 billion in the energy sector and the combined EDFI investment portfolio for the sector totalled €8.2 billion by the end of the year. At the same time, energy production and consumption are major contributors to climate change. This essay focuses on how DFIs strike the appropriate balance between energy production and climate action, how they account for their impacts, and the role of DFIs and researchers in strengthening the existing evidence base on DFI effectiveness.

The contribution of DFIs to the global goals on energy access and climate action

Most DFIs have made policy pledges and created investment targets to support increased access to affordable and reliable clean energy (SDG 7) and the implementation of the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC). Norfund, for example, believes a lack of access to reliable electricity is a large constraint for business development in poor countries and is targeting 50% of its allocated capital to renewable energy investments (Norfund, 2016).

In addition, to increase the supply of well-prepared, 'bankable' renewable energy projects available to investors, Norfund has established a project development facility to bolster the support available to early-stage renewable energy project development. For its part, CDC Group has committed a new Resource Efficiency Facility that aims to decouple economic growth from excessive natural resource consumption (CDC Group, 2018). This investment mechanism,

which focuses solely on improving energy efficiency, is unique among DFI offerings.

Investments to help combat climate change in support of SDG 13 and the UNFCCC Paris Agreement have been equally popular among DFIs. The focus of their commitments is two-fold: to invest in climate change mitigation and adaptation strategies, and to catalyse other investment in climate change mitigation and adaptation.

Proparco announced that it would earmark €2 billion from 2017 to 2020 for investment in projects that contribute to the fight against climate change as part of its Objective 2020 (Proparco, 2017). Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO) has positioned SDG 13 as one of three SDGs guiding its strategy and has committed to doubling the expected amount of avoided greenhouse gas (GHG) emissions per annum by 2020 (FMO, 2017). While other DFIs capture these GHG data, FMO is unique in setting a hard target. In addition, FMO has committed to 'greening' its portfolio by targeting 30% of new investments to green investments as part of its investment strategy.

To catalyse investment in mitigation and adaptation strategies, DFIs are pursuing new and diverse strategies. In 2015, FMO announced it would be a seed investor in Climate Investor One, an innovative mechanism to finance renewable energy projects at specific stages of the project lifecycle (FMO, 2015). Other examples include Finnfund's (2018) commitment to develop new instruments and structures to channel private and institutional investments to climate change projects and Proparco's (2017) support for the mobilisation of private sector funds by creating renewable-energy equity investment vehicles and developing syndication capacity.

Measuring DFI impact

The metrics for DFI impact on SDG 7 and SDG 13 are centred on the number of gigawatt hours (GWh) produced and the GHG avoided as a result of investments. While DFIs report on how they are improving energy infrastructures in developing countries, not all report the split between renewable and non-renewable energy generated. There is also little mention of how people in these countries can access this energy. Some DFIs with investments in distributed generation do, however, report on the number of clients provided with solar home systems. A handful of DFIs publicly release their estimates of the number of people affected by their energy investments, but these estimates have been challenged whenever they have been scrutinised (Slob et al., 2017).

In terms of their impact on climate change, most EDFI members report the amount of GHG avoided via an individual investment based on methodologies adapted from international best practices, such as the Carbon Footprint Tool created by Agence Française de Développement (AFD) or the Global Greenhouse Protocol. However, the measurement is not standardised across DFIs and transparency in the actual calculation is often lacking, which hinders comparability.

There are also divergent views on whether the calculation of emissions impact should be based on the GHG avoided by an investment; whether an investor should net its GHG-avoided calculation against the GHG its investments created; or whether simply calculating the total carbon footprint of a portfolio is the most transparent way forward. While it may be attractive to call for harmonised reporting, harmonisation may come with unintended consequences. DFIs may, for example, be drawn to investments that address climate change mitigation because it will report well on GHG metrics, but these same investments may undermine climate change adaptation efforts. Or, in the case of smaller investors, harmonisation may lead them to invest in projects that are well-established and easy to report on to attain these incentivised metrics and keep reporting costs manageable. Portfolio-level metrics, on the other hand, allow for greater project-level experimentation, enhancing the likelihood of financial or development additionality as an outcome. The unresolved challenge, however, is how to attribute this additionality when there are multiple investors.

Strengthening the evidence base

Understanding the impacts of DFI investments on access to energy and climate action requires nuance, as well as more consideration of the metrics that are meaningful to different audiences.

The literature agrees that there is a positive relationship between access to electricity, job creation and economic growth, and it is easy to calculate how a DFI investment increases the electricity generated. However, data are sorely lacking on who has access to this installed capacity and the distributional impacts of the investment.

For DFIs, which are coming under ever-greater scrutiny, it is important to provide the data necessary for a better understanding of their impact. Reporting on the contribution of renewable-energy investments to total GWh produced, the number of clients reached via access to energy investments, the investment impact on the reduction of energy intensity, and the catalytic effects of climate finance initiatives are just a few areas where improved data would enable DFIs to better tell their stories. In addition, an agreement among DFIs on how to account for GHG emissions, perhaps at both the project and portfolio levels, would provide greater comparability for external audiences.

Even with the current data, there are still significant opportunities for researchers to better understand the contributions of DFI investments to energy access and climate action. For example, identifying the varied impact of universal access to electricity across and within countries could provide insight for DFIs on where their investments would have the most impact. This is linked to the need to discern which types of investment, whether in energy generation, transmission, distribution or efficiency, are best suited for DFIs and where financial and value additionality are embedded in these different types of investments.

Conclusions

Access to energy and its impact on climate change present a crucial tension within the SDGs. DFIs should be lauded for the resources that they have dedicated to these issues so far, but this trend must continue. DFIs can strengthen their contribution to the achievement of these SDGs by developing greater reporting capacity and working with researchers to ensure that external stakeholders gain a deeper awareness of their efforts and impacts.

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6 Energy transition and the Paris Agreement

Pierre Forestier, Proparco

Abstract

The private sector has a key role to play in the transformation of economies to low-carbon pathways as the Paris Agreement creates a renewed context for the climate action of development finance institutions (DFIs). A paradigm shift in development models is now needed to support the private sector and the countries that are making the transition to a low-carbon future. A fundamental evolution of approaches to climate issues is required and new climate and development strategies should be adopted as proposed by the Agence Française de Développement (AFD) Group.

Introduction

The private sector has wielded major influence on countries' development trajectories over the years and is now part of development aid policy. While private and corporate investments were once seen mainly in terms of their benefits for economic growth and employment, their impacts on the quality of life, the environment and social cohesion have been highlighted in recent years through increasingly popular corporate social responsibility and social and environmental responsibility approaches.

With the Sustainable Development Goals (SDGs) and the Paris Agreement, the transformation of our modes of production, consumption – even our way of life – has now become necessary and necessitates a universal transition towards more sustainable and equitable models. The requisite new investments (particularly in infrastructure stocks and organisations that can drive rapid change) present the private sector with an essential role. This transition also requires international aid to renew its mandate to incorporate the role of the private sector. International aid needs to look beyond protection and support for the most vulnerable people in order to redirect and regulate investments, particularly those from the private sector, so that these investments support the complete transformation that is needed.

The mission of members of the Association of European Development Finance Institutions (EDFI) is to promote, through financing that is private sector oriented, transitions towards sustainable, balanced, inclusive and carbon-free growth models in developing and emerging economies. Over the past few years, the 15 EDFI members, whose consolidated portfolio amounted to €38.1 billion in 2016, have greatly increased their investments in climate projects. Their aggregated climate finance totalled €8.7 billion between 2009 and 2016 (EDFI, 2017). Numerous renewable power plants across Africa, Asia and Latin America would not exist without funding from European DFIs.

The paradigm shift induced by the Paris Agreement

The Paris Agreement is the catalyst for a renewed context for the climate action of DFIs. Beyond the collective recognition of its objectives and the recognition that a paradigm shift in development models is necessary, the Agreement entails concrete ownership processes at country level. These are embodied by the publication of Nationally Determined Contributions and the formulation by 2020 of long-term low greenhouse gas (GHG) emission development strategies. It also entails strong and renewed expectations of development financiers, with finance flows targeted towards low

GHG emissions and climate-resilient development, to fund public policies and strategies.

The AFD and its subsidiary, Proparco, were among the first international donors to integrate the fight against climate change into their practices. The notion of global public goods was introduced in the first Climate Strategy of the AFD Group in 2005 and has been strengthened in every subsequent strategy; particularly in 2012 with the adoption of an ambitious target: that 50% of annual commitments would support projects with climate co-benefits.[1]

This approach is based both on the principle that the fight against climate change is inextricably linked to the trajectory and development policies of countries and to the involvement of economic, institutional and civil society actors.

The ambitious objectives of the AFD Group

The Climate and Development Strategy for 2017–2022 further strengthens the action and positioning of the AFD Group on climate change. Three strategic priorities have been identified:

1. ensuring that the Group's activities are consistent with the Paris Agreement in supporting low-carbon and climate-resilient development and related public policies
2. maximising the impact of the Group's related actions, particularly in terms of leverage effects, and
3. strengthening AFD's role as a platform for France's international financial commitment to climate and its positioning as a reference on climate and development among international financial institutions (IFIs).

The Climate and Development Strategy for 2017–2022, therefore, proposes four major commitments:

1. ensure that activities are 100% compatible with the Paris Agreement
2. increase the volume of climate finance
3. contribute to the redirection of finance and investment flows, and
4. co-build solutions and bring influence to bear on standards.

The first commitment entails a fundamental evolution of the AFD Group's approach to climate issues. It means shifting from an approach based mainly on assessment of the benefits of projects with direct climate co-benefits and selection criteria for highly emissive projects, towards an approach that seeks and characterises interventions that are consistent with low-carbon and climate-resilient development pathways.

In line with this Climate and Development Strategy, Proparco is committed to ensuring that all of its financing contributes to low-carbon and resilient development. A systematic analysis of the coherence of its financing and investments with the Paris Agreement has been implemented, examining GHG emission trajectories and vulnerability to climate change effects. This risk-based approach focuses on operations that are under appraisal and that have an anticipated high level of inconsistency because of a high intrinsic level of GHG emissions from the investment; a high vulnerability to the effects of climate change; or a direct or induced structural effect of the project on the economy.

The AFD Group has allocated a total of €33.8 billion to finance projects with climate co-benefits since 2005. The objective of allocating 50% of annual commitments to the financing of such projects will lead to a yearly deployment of more than €5 billion of climate finance in 2020. Within this objective, the Group will aim to substantially increase its financing for adaptation in every region, but with a particular goal of increasing financing in Africa, least developed countries (LDCs), and small-island states, to more than €1.5 billion per year by 2020.

In 2018, the AFD Group committed €3 billion to climate change mitigation. This finance aims to contribute to the avoidance of 10.5 metric tonnes

1 A project presents climate co-benefits when it meets one or more of the three following criteria: (1) the emission reductions it generates are greater than the emissions it generates over its lifetime; (2) the project reduces the vulnerability of assets, people and ecosystems to the consequences of climate change; and (3) the project supports the implementation of climate policies/strategies at the national level.

of carbon dioxide ($MtCO_2$) per year in emissions over the lifetime of the projects. Proparco's own commitments reached €521 million in 2018, aiming to contribute to the avoidance of 1.5 $MtCO_2$/year.[2]

To redirect finance and investment flows, the AFD Group needs to diversify both its instruments and its action, renew its doctrine on the use of blending instruments and on the assessment of 'climate' risks. At the project level, the AFD Group aims to maximise the leverage effect of its financing in order to redirect private investment. It will also enrich its practice of mixing national and international climate finance with its own financial instruments. The AFD Group will continue to integrate systemic financial risks related to climate change (spanning both physical and transition risks) into its risk-analysis processes.

Finally, the AFD Group will act not only through its operations, but will also bring its influence to bear on standards to spur innovation as well as jointly build and capitalise on experience. The Group aims to have a lasting impact on practices through intensified action and engagement with coalitions of finance, institutional, economic and research actors.

Conclusion

Climate action is needed as a matter of grave urgency and requires the broadest possible mobilisation. Alongside the SDGs, climate change issues are at the heart of the awareness-raising actions that DFIs, including the AFD Group, will develop and support in the years to come.

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2 AFD calculates its emissions using an internal tool and methodologies that are compatible with the harmonised approach of the International Financial Institution Framework for a Harmonized Approach to Greenhouse Gas Accounting (World Bank, 2015).

7 A crucial role for development finance institutions in energy projects across sub-Saharan Africa

Karoline Teien Blystad, Norfund

Abstract

Sub-Saharan Africa is in urgent need of more energy supply. Investments in the sector are far below requirements and private sector investment is vital. In fact, independent power projects (IPPs) are one of the fastest growing sources of energy investments in the region. But risk mitigation is essential in markets where the off-taker lacks investment-grade rating. Data on IPPs in sub-Saharan Africa (1990–2014) show that development finance institution (DFI) involvement is widespread and that such institutions play a key role in mitigating risk and bringing private financiers into IPPs.

Introduction

If the world is to meet the Sustainable Development Goals (SDGs) by 2030, the under-developed energy sector in sub-Saharan Africa needs significant investment. It is estimated that more than 345 gigawatts (GW) of additional electricity generation capacity will be needed in the region – more than three times its current capacity. The public sector cannot fill this vast gap alone. More governments, therefore, are welcoming to private sector investments, but many private investors see such investments as too risky.

The energy gap holds back economic growth

The energy sector in sub-Saharan Africa remains under-developed in terms of energy access, installed capacity and overall consumption. In 2017, the 48 countries of the region, with a combined population of more than 1.1 billion people, had less installed generating capacity (103 GW) than Spain (106 GW), a country with a population of just 47 million people (EIA, 2019). What's more, electricity generation capacity in sub-Saharan Africa has stagnated over the past three decades and economic growth rates in the region are barely half of those seen in other developing regions (Eberhard et al., 2008).

This energy shortage is holding back the region's economic growth and job creation: 79% of businesses in sub-Saharan Africa experience electrical outages and 53% depend on generators for their electricity needs. Using generators is expensive as the cost of energy generated this way is three to six times the typical price paid by grid consumers. This 'makes many Africa-based industries and manufacturing sectors uncompetitive, slows job growth, and drags down annual gross domestic product (GDP) growth between one to three percentage points' (Castellano et al., 2015: 1). Lack of access to energy is cited as a major constraint to operations by 40% of businesses (World Bank, 2019).

The energy sector needs substantial investment

The need for major investments in energy generation capacity is obvious, especially in the face of strong economic growth in the region, which has driven rising demand for electricity over the past decade (Eberhard et al., 2016). It is estimated that the level of demand for electricity in sub-Saharan Africa needs to

increase to 1,600 terawatt hours (TWh) by 2040 (equivalent to 345 GW of electricity capacity). In all, 292 GW of new capacity will be needed over the next 25 years – in addition to the capacity already under construction. This means that more than $490 billion must be invested in additional energy generation capacity by 2040 (Castellano et al., 2015).

Existing investment levels are far below what is required. Approximately $45.6 billion was invested in electricity generation in sub-Saharan Africa between 1990 and 2013. When we exclude South Africa, this total drops to $31.3 billion (Eberhard et al., 2016).

Historically, public utilities have been the major sources of investment in energy generation, but this is now changing. Most African governments are unable to fund their energy needs in full, and few utilities have investment-grade ratings and are unable to raise sufficient funding at affordable rates (Eberhard and Gratwick, 2013). Inevitably, the large funding gap cannot be closed by the public sector alone and increasing private investment is critical.

IPPs are crucial to increase energy supply

Globally, most private sector financing of energy projects is channelled through IPPs. These are energy projects that tend to be privately developed, constructed, operated and owned, and that have a long-term power purchase agreement (PPA) with a utility or other off-taker. Few African countries have investment-grade ratings, however, which limits the possibilities of traditional project-financed IPP deals and makes financing particularly challenging.

This is the context in which development finance institutions (DFIs) that invest in the private sector (e.g. the International Finance Corporation (IFC), the Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO), Proparco and the Norwegian Investment Fund for Developing Countries (Norfund)) have played a significant and additional role in funding IPPs.

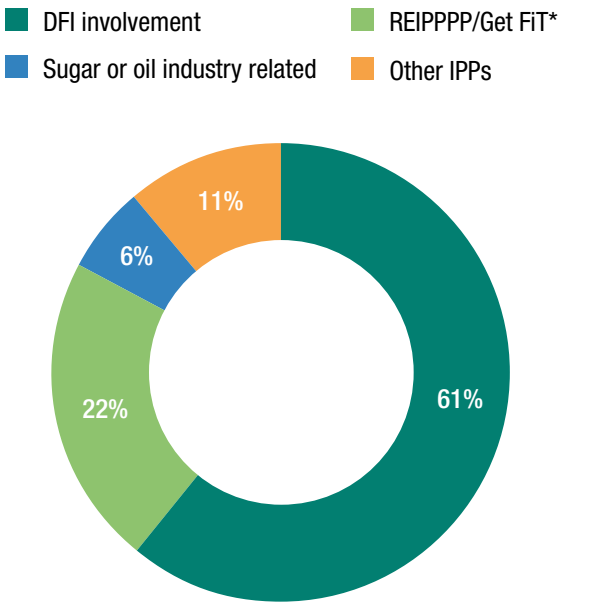
Investment in IPPs in sub-Saharan Africa is one of the fastest growing sources of energy investment in the region and virtually tripled between 2006 and 2013. IPPs represent more than $11.12 billion in investments and 6.8 GW of installed capacity. Adding South Africa's 92 renewable energy IPPs brings their number to 151 projects, totalling more than $30 billion in investment and more than 12 GW in installed capacity (Eberhard et al., 2017). That equals 17% of the total energy capacity growth in the region seen from 1994 to 2014. Many of these IPPs have some form of DFI involvement.

The role of DFIs as funders and risk mitigators for IPPs

One key concern for investors is the security of revenue flows and, therefore, the financial viability of the off-taker (usually the state-owned utility). Many African utilities have poor credit ratings and require significant de-risking to attract private equity and debt-providers (Eberhard et al., 2016). DFIs play several roles in funding and mitigating risks related to IPPs.

DFIs invest directly in IPPs and help bring to a financial close projects that would not otherwise have been viable given the lack of investment-grade ratings in their countries (Eberhard et al., 2017). Of the 144 IPPs that reached financial close in sub-Saharan Africa between 1990 and 2014, 88 (61%)

Figure 4 Distribution of IPPs in sub-Saharan Africa



*excluding IPPs where the DFIs are involved.
Source: authors' calculations based on Eberhard et al. (2017).

had some form of DFI investment or guarantee. IPPs related to the donor-supported scheme in Uganda, Get FiT, and the renewable-energy procurement programme in South Africa, REIPPPP, account for 22% of the IPPs, while the sugar and oil industries account for 6% (see Figure 4). Excluding investment-grade countries (Botswana, Mauritius and South Africa), DFIs have been involved in 72% of all IPPs in sub-Saharan Africa.

One key barrier to the wider deployment and diffusion of clean and renewable energy in developing countries is the inadequate supply of well-prepared, 'bankable' projects that are available to investors. Some DFIs, such as Norfund, have therefore established a project development facility to increase the support available to early-stage renewable-energy project development. To date, 15 early-stage projects have received funding, with 6 becoming commercial energy projects so far. Several other projects are still under development.

DFIs appear to 'crowd-in' private investments through their ability to place pressure on the host government to honour contracts, as well as offering risk-mitigation products such as guarantees and insurance. As a result, we have seen very few IPPs that have actually unravelled and have observed a renegotiation of contracts (after the PPA was signed) in only 8 of the 27 IPPs in Kenya, Nigeria, Tanzania and Uganda (Eberhard et al., 2017).

Conclusion

It is clear that DFIs have played a significant role for most IPPs in sub-Saharan Africa, either through the use of risk-mitigation products or, primarily, through actual investment in these projects (Eberhard et al., 2017). The challenge ahead is for the countries of the region to create the conditions needed to attract more and better IPPs, and for DFIs to scale up their clean-energy investments.

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8 Theories of change and the impacts of renewable energy investments

Juho Uusihakala, Finnfund, and Teodora Nenova and Rene Kim, Steward Redqueen

Abstract

Finnfund has developed theories of change (ToC) for its priority investment sectors. ToC are useful tools for the analysis and illustration of the direct, indirect and wider impacts of Finnfund's investments. Studies by Steward Redqueen highlight the importance of Finnfund's investments in renewable energy in Cape Verde and Honduras in reducing the average cost of electricity generation and power outages. However, they also show that the impact of additional energy capacity in an economy is limited if the price of electricity is not cost reflective. The results of the studies inform and confirm Finnfund's ToC, which underpins its renewable energy investments and enables Finnfund to report the indirect and wider impacts of its investment to its stakeholders. More importantly, the studies bring strategic insights into how Finnfund – and other development finance institutions (DFIs) – can maximise the impact of their investments.

Introduction

ToC or impact pathways are increasingly used as analytical tools and frameworks to capture changes in development. A ToC is, in essence, a causality analysis based on a thorough analysis of existing evidence (research), expert knowledge and interviews. While ToCs tend to be used in development aid contexts where interventions are planned by the financiers, they are also useful for DFIs as analytical frameworks to illustrate how their investment into a company is expected to contribute to development.[1]

Finnfund has developed generic ToCs for its main investment sectors: renewable energy, sustainable forestry, agriculture, and financial institutions. These are basically 3 x 3 frameworks[2] with three spheres of influence: economic, social and environmental, and three levels of impact: direct, indirect and wider.

Because the ToCs are generic, they do not include assumptions (described as conditions that are needed for an impact to materialise). These assumptions can, however, be drawn from commercial and environmental and social-risk assessments. Finnfund's ToCs are outlined in its latest *Impact report* (Finnfund, 2019).

ToCs can and should be used to inform the kind of monitoring data that are requested from DFI clients. These include indicators on

1 There are several useful sources for ToC. See:
www.betterevaluation.org/en/rainbow_framework/define/develop_programme_theory
www.theoryofchange.org/what-is-theory-of-change/
www.poverty-action.org/publication/goldilocks-toolkit-theory-change
https://undg.org/wp-content/uploads/2017/06/UNDG-UNDAF-Companion-Pieces-7-Theory-of-Change.pdf

2 With the exception of financial institutions.

the level (quantity) of direct economic, social or environmental results. This is information that DFI clients can readily and credibly report themselves – production, number of jobs, infrastructure developed, taxes paid, hectares planted and more.

The interesting question is, however, whether these direct results (or outputs) have led to the anticipated indirect and wider impacts. As these are questions the companies themselves cannot answer, Finnfund collaborated with Steward Redqueen to investigate the indirect and wider employment and economic impacts of Finnfund's investments in renewable energy in Cape Verde and in Honduras.

Methodological approach

There is a large body of academic literature on the relationship between energy or electricity consumption and economic growth. Findings tend to depend on the country, the analysis methodology, selected variables and the period under consideration. Not surprisingly, no consensus has been reached. In fact, four possible relationships between electricity consumption (EC) and gross domestic product (GDP) have been found.

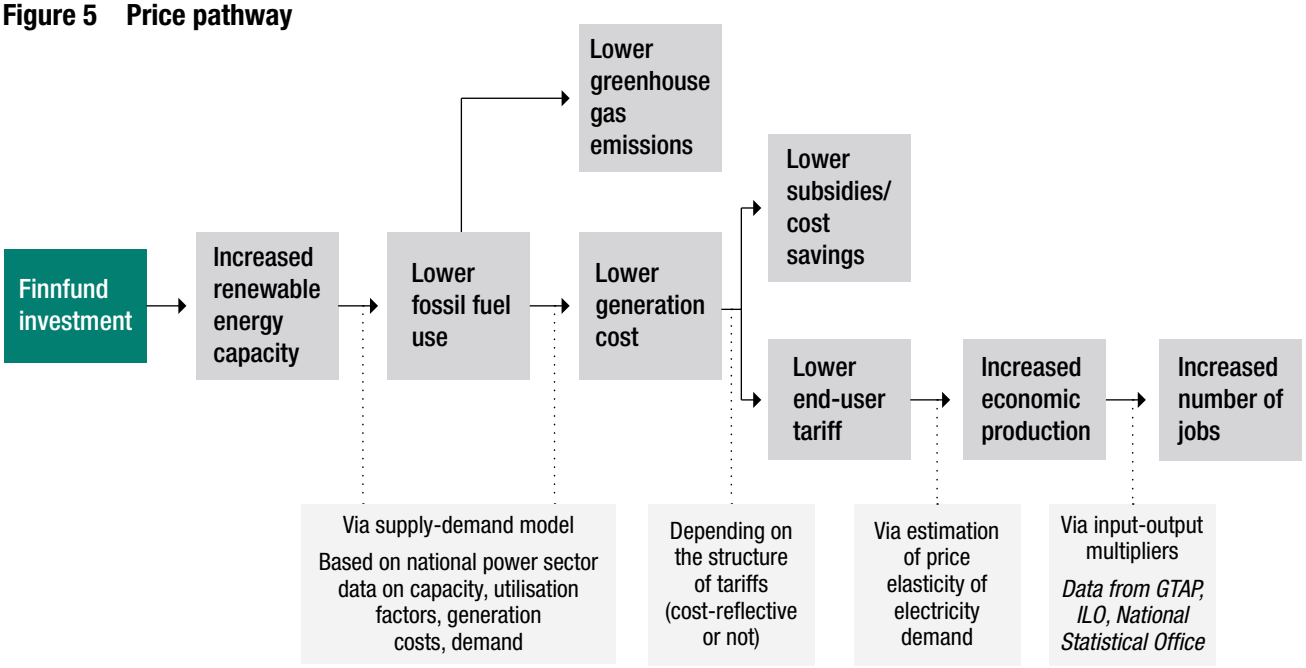
1. Growth hypothesis: electricity consumption causes GDP growth (EC ⇨ GDP).
2. Conservation hypothesis: GDP growth causes electricity consumption (GDP ⇨ EC).
3. Feedback hypothesis: electricity consumption and GDP growth cause each other (EC ⇔ GDP).
4. Neutrality hypothesis: electricity consumption and GDP growth have no correlation (EC ⇹ GDP).

To improve our understanding of how investments in power create employment, Steward Redqueen used a framework of two pathways that impact the energy situation and economy:

1. decreasing the price of electricity (Figure 5)
2. reducing the duration of electricity outages (Figure 6).[3]

Lower prices and fewer power outages enable companies to increase their electricity use and, as a result, produce more. Higher production levels mean higher demand for goods and services used in production processes. This benefits local

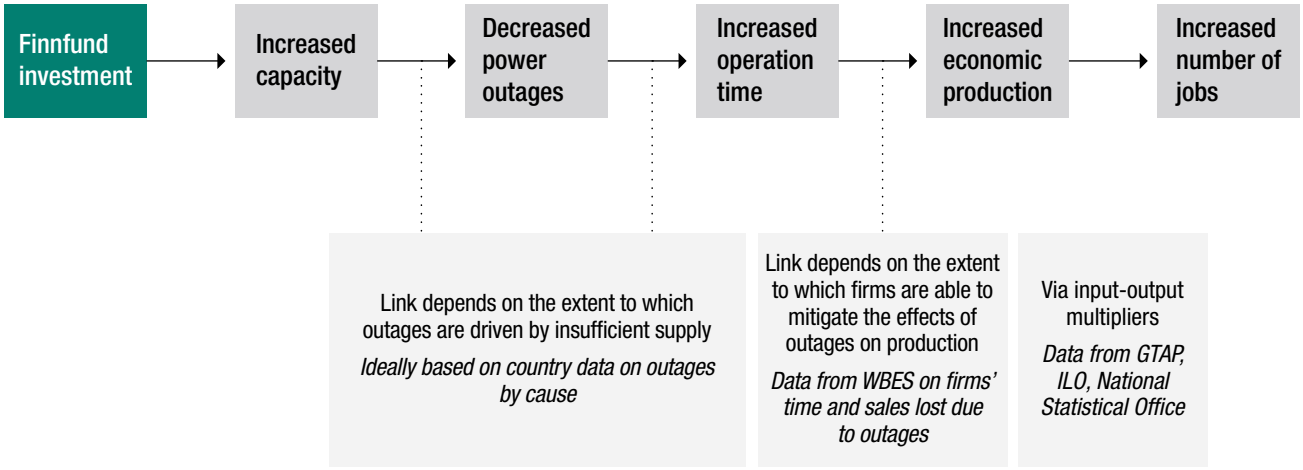
Figure 5 Price pathway


Finnfund investment
Increased renewable energy capacity
Lower fossil fuel use
Lower greenhouse gas emissions
Lower generation cost
Lower subsidies/ cost savings
Lower end-user tariff
Increased economic production
Increased number of jobs
Via supply-demand model
Based on national power sector data on capacity, utilisation factors, generation costs, demand
Depending on the structure of tariffs (cost-reflective or not)
Via estimation of price elasticity of electricity demand
Via input-output multipliers
Data from GTAP, ILO, National Statistical Office

Note: GTAP, Global Trade Analysis Project; ILO, International Labour Organization.
Source: Steward Redqueen (2018a).

3 The framework used in this study follows the one developed and tested by Steward Redqueen during their previous studies in the Philippines and Turkey (International Finance Corporation), Uganda and Cameroon (CDC Group), India and Uruguay (Proparco) and Senegal (Private Infrastructure Development Group).

Figure 6 Outage pathway


Finnfund investment
Increased capacity
Decreased power outages
Increased operation time
Increased economic production
Increased number of jobs
Link depends on the extent to which outages are driven by insufficient supply
Ideally based on country data on outages by cause
Link depends on the extent to which firms are able to mitigate the effects of outages on production
Data from WBES on firms' time and sales lost due to outages
Via input-output multipliers
Data from GTAP, ILO, National Statistical Office

Note: WBES, World Bank enterprise survey.
Source: Steward Redqueen (2018b).

suppliers and results in more economic activity, which brings employment opportunities, salaries, tax payments and profits, leading to higher levels of GDP.

It should be noted that the dominant pathway varies between countries: the price pathway is of particular relevance for countries where new capacity (in part) replaces existing expensive thermal generation, while the outage pathway is vital in countries with low reserve margins, where insufficient capacity causes blackouts. In countries where power prices are not cost-reflective, i.e. they do not reflect the true cost of the power being generated, additional capacity would not change the price of electricity.

To derive the results for Cape Verde and Honduras, Steward Redqueen analysed power supply and demand and constructed a counterfactual of what would have happened had new generation capacity not been commissioned. This made it possible to calculate changes in electricity price relative to a hypothetical case in which Finnfund-invested projects were not realised. The impact of additional capacity on outages and firms' production times was determined to see if and how changes in production affect employment and income generation.

Key results and conclusions

The analysis found that Finnfund's investments have reduced the average generation cost of electricity by 8% in Cape Verde and by 5% in Honduras. This has benefited, in particular, national utilities that have made savings of over €10 million and €20 million respectively as they no longer have to purchase expensive and polluting diesel. As a result of reduced outages, companies' operation time – and consequently their output – increased. It is estimated that Finnfund's power investments increased GDP in both countries by about 0.2% (Table 1).

Conclusion

These studies, along with others conducted by Steward Redqueen in the energy sector, show that the impacts from investments in power vary according to the characteristics of the local energy sector. Organisations that are considering an investment in (renewable) energy should recognise the importance of the following issues for the economic impact of their investments.

- Low reserve margins imply that the power sector is more prone to blackouts and,

therefore, additional energy supply leads to reduced outages, higher production and more jobs.
- A high dependence on fossil fuels to generate energy leads to the displacement of expensive thermal generation and the avoidance of carbon emissions.
- The effect of displacing thermal on the overall generation cost will depend on the difference between the cost of fuel and renewables. When fuel prices are high, investing in cheaper renewable capacity will have a high impact on the generation cost.
- The effect of lower generation costs depends on whether tariffs are cost-reflective. If they are not, as was the case in Cape Verde and Honduras, a lower generation cost moves the energy situation closer to a cost-reflective price, reducing the need for government support and driving the sector nearer to a market-based model. If tariffs are cost-reflective, a lower generation cost leads to lower end-user tariffs, higher electricity consumption, more production and more jobs.

Finnfund wants to invest in renewable energy that is cheaper, cleaner and that increases the reliability of electricity distribution. The studies in Cape Verde and Honduras prove that all three of these objectives can be reached.

Table 1 Key results from the studies in Honduras and Cape Verde

Effects on power sector	Honduras	Cape Verde
Installed energy supply in-country	2,450 MW	162 MW
Average effective capacity factor in-country[1]	45%	40%
Installed supply of Finnfund-invested plants	104 MW	25.5 MW
Average effective capacity factor of Finnfund-invested plants	40%	35%
Finnfund-invested plants' share of effective supply	4%	14%
Effects on price		
Generation costs reduction	-4.7%	-7.7%
Value of displaced fuel imports	€20 m	€11 m
Total CO_2 emissions avoided	285 kt	59 kt
Effects on outage		
Δ Operations time	0.5%	0.8%
Δ Firm output	€70 m	€5.4 m
Δ Value added supported (annual)	€37 m	€3 m
% of GDP	0.21%	0.24%
Δ Jobs supported (one-off)	5,750	535
% of labour force	0.17%	0.22%

[1] Capacity adjusted for utilisation rate.
Note: MW=megawatt; m=millions; kt=kilotonne.
Source: Steward Redqueen (2018a and 2018b).

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Part 3 Frontier issues in understanding the impact of DFI and private investment

DFIs and economic transformation

9 Understanding the contribution of development finance institutions to economic transformation

Paddy Carter, CDC Group

Abstract

The eradication of poverty demands the transformation of unproductive economies into ones that are capable of sustaining a decent standard of living for every citizen. Development finance institutions (DFIs) can accelerate this process, but making the connections between individual investments and economic transformation is not easy. DFIs must find new ways to bridge this gap.

Introduction

CDC Group and other DFIs need to know the impacts of our investments for capital allocation and management decisions, and for accountability to our shareholders and the public. This essay looks at what DFIs can do in practice when investments are intended to have an impact at the macroeconomic level.

Beyond jobs

Most DFIs see job creation as the main measure of their development impact and it is easy to understand why: between now and 2030, Africa's working-age population, for example, is expected to grow by 40% to 1 billion (AfDB, 2019).

But DFIs also know that unproductive low-income economies must transform themselves into high-productivity economies that are capable of supporting a good standard of living for all their citizens in a way that is sustainable. That will not happen by adding 'more of the same' jobs.

Economists use the term 'structural transformation' to refer to the movement of workers and capital out of unproductive activities, and into those that are more productive (see Duarte and Restuccia, 2010, for example). Historically, this has meant moving the workforce out of agriculture into manufacturing, and then into services.

DFIs can contribute to economic transformation by making investments and creating jobs in higher-productivity activities, such as manufacturing. In this way, DFIs contribute to the process of 'creative destruction', so that the average productivity of firms in the economy will increase over time.

Replacing unproductive units with those that are more productive is certainly a contribution to economic transformation, but it is not transformational. Rather than transform economies one investment at a time, DFIs also aspire to make investments that create ripples of impact across the entire economy.

If we think of an economy as a production network, we could think of a non-transformative investment as affecting just one small part of it. For example, opening a new restaurant might create some new demand for its suppliers, but it might also put another restaurant out of business (and reduce demand for its suppliers).

At the other extreme, an investment that reduces transportation costs across the economy could cause the entire network to rearrange itself, with many firms entering and others exiting, and new connections to be made. The example of transportation hints at how investments can be transformative: if they produce intermediate goods that are used by many other firms in the economy.

The World Bank (2018) has defined a transformative investment as one that reduces the

costs of subsequent investments, but that could be interpreted more broadly as an investment that increases the returns of other investments. Jones (2011) has argued that the huge productivity gap between rich and poor economies can be explained by linkages and complementarities in production networks – or the lack of them. When investments are complementary – the productivity of one increases the productivity of the other – economies can be held back by the 'weakest link in the chain'. If DFIs' investments can fix these crucial weak links, we can contribute to economic transformation.

Reducing the price of intermediate goods and services is only one mechanism by which DFIs can hope to be transformational. Another important channel is the creation of knowledge and capacity-building (which can extend to regulatory reform and other policy interventions). DFIs place great value on pioneering investments that will have a 'demonstration effect' so others will follow in their footsteps. Much of the work of DFIs to incubate local capital markets could be seen as trying to fix a weak link in an economy.

How can we know which investments are transformative?

DFIs want to know what impact investments will have on economic transformation before they make them (*ex-ante*) and afterwards (*ex-post*). A few DFIs have developed investment assessment systems that attempt to assess transformative potential, but there is no space to describe those efforts here.[1]

In general, measuring impact gets harder the further the outcome you want gets from the point of intervention. Trying to identify the impact of an investment on economic transformation is a challenge because there is so much going on at the same time across an economy, making it difficult to isolate the effect of a single investment. Innovations in evaluation, such as the use of satellite-generated luminosity data, have opened new avenues for the identification of transformative impact, but DFIs will not, as a rule, be able to measure the transformative impact of their investments directly, as outlined by BenYishay et al. (2018) in their blog on impact evaluation at the United States Agency for International Development (USAID). So, what should DFIs do and what should their external audiences look for?

A second-best approach would be to infer the transformative impact of investments by drawing on the universe of economics research, both theoretical and empirical. That means figuring out what sorts of investment have proven to be transformational in the past and then demonstrating that DFIs are making them. Such an approach would bring *ex-post* and *ex-ante* assessments together: both must be grounded in understanding of what outputs drive transformation.

Who benefits?

Returning to the idea of seeing the economy as a production network, we need to add another layer of information to this map – who are the workers and the customers of each node of the network. If we want economic transformation to create inclusive growth, we need it to affect nodes that employ or serve the poorest sections of society, even if those nodes are quite distant from the point of intervention.

This is the hardest question of all, and existing economics research is, at least based on my reading of it, of limited use. The ultimate impact of an investment will depend greatly on context and on the responses of other investors. There are hints and suggestions to be found in empirical research, but these are questions where DFIs may have to rely on guidance from theory.

The same methods that are currently used to estimate indirect job creation numbers can also be used to estimate who benefits from those jobs. Input-output (IO) tables can be augmented with information about the households employed in different sectors, to create what's called a 'social accounting matrix'. That is a useful first

1 A longer version of this essay is available at www.edfi.eu/wp/wp-content/uploads/2019/06/EDFI-Impact-Conference-Session-note-on-Frontier-Methodologies-.pdf which describes the approaches taken by the International Finance Corporation (IFC), Deutsche Investitions- und Entwicklungsgesellschaft (DEG) and the CDC Group.

step, but IO models hold a lot of economic relations constant, and do not capture channels that are likely to be more transformative (such as reducing the effective price of intermediate goods) or show how workers move between sectors as the economy develops.

Models that can do that are called Computable General Equilibrium (CGE) models. Even these, however, do not capture everything we might wish for, such as how investments may cause technological change. Some DFIs have invested in building CGE models of the economies in which they invest, but while these are useful for understanding the mechanisms via which investments may lead to development outcomes, it is hard to know how much faith to put in them, and they are of limited use for *ex-ante* capital allocation decisions.

It is also unlikely that external audiences would place much weight in theoretical results when looking for evidence that DFIs have reduced poverty. One problem here is that positive spillover effects – so critical for economic transformation – are hard to distinguish from the discredited idea of 'trickle-down' economics.

Conclusion

This leaves DFIs with twin challenges. We need to find ways to trace the connections between our investments, economic transformation and inclusive growth so that we can make the right decisions about our capital allocation. And we also need to find ways to communicate those linkages to external audiences, who might not be convinced by a CGE model.

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10 A new focus for development finance institutions to enhance the role of economic transformation

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Abstract

By some measures, development finance institutions (DFIs) already contribute to the process of economic transformation. However, they can do more, especially after their initial investment has been made. This essay argues for an enhanced role for DFIs in 'after-care' operations following the initial financial close to enhance not only the profitability of the investment, but also its impact on the wider society. This involves the use of new competencies around coordination with other investors and building partnerships and local linkages, as well as influencing public policies.

Introduction

A recent summary of evidence on the impact of DFIs (Attridge et al., 2019, and included in this essay series) finds that there is limited robust evidence of their impact. However, the 'high-quality' evidence that is cited includes studies that link the operation of DFIs to changes in productivity.

The magnitude of gross investments by DFIs is now so high that we should expect to find a macroeconomic impact if there are positive investment spillovers. And this is indeed the case.[1] Massa et al. (2016) present evidence (including regression analysis, case studies, and before/after comparisons) which suggest that DFIs have had positive impacts on private sector gross fixed-capital formation (e.g. in the Uganda power sector). DFI officials who focus on individual investments sometimes underestimate or even ignore their impact on the wider economy, which is an oversight. We argue that DFIs can shape their own impact on the wider economy.

Selecting transformative investments is important …

More can be done (*ex-ante*) to stimulate transformative investments. Much attention is focused on the selection of deals that have the greatest potential contribution to transformation. Lemma (2018) provides a good summary on the possible ways in which DFIs could examine (*ex-ante*) or assess (*ex-post*) whether they have contributed to economic transformation (defined as a long-term process of shifting resources from low-productivity to high-productivity activities, both within and between sectors).

Some sectors or activities are likely to have a greater transformative impact and if they respond more actively to private sector requests they will promote and enhance the impact on transformation. For example, a repeat loan to a bank that is under-utilised for onlending (perhaps because of information asymmetries) is likely to have a transformational impact that differs from investment in a relatively high-productive,

1 Jouanjean and te Velde (2013) use panel data to evaluate DFI investments in 63 countries and find a statistically significant and positive relationship between DFI investments and labour productivity: an increase of 1% in DFI investments as a proportion of gross domestic product (GDP) can result in an increase of 3.4% in labour productivity. Massa et al. (2016) measured the individual impacts of DFI investments on three relevant metrics: economic growth, labour productivity and gross fixed capital formation (GFCF).

green-field manufacturing plant (although in practice context matters a lot).

… but DFIs have few profitable projects to choose from …

DFIs sometimes push back against the argument that they should 'select' transformational projects. They would argue there are not enough profitable investment projects in the poorest countries and they have very few meaningful options to choose from. While DFIs could recruit more staff to work on labour-intensive tasks such as preparing deals in a sector and developing pipelines, and this may generate more deals, our work with Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V (FMO) (Carnegie and FMO, 2014) has suggested that only some 120 investments a year made it to the *Clearance in Principle* (CIP) stage and more than 100 would proceed to actual commitments and investments. The real blockage is identifying investment projects that pass the investment code (including financial rates of return) of the DFI. Such micro-level observations are supported by portfolio-level accounts. Even when it could draw on additional shareholder capital, CDC Group was unable to raise its investment commitments between 2016–2018, suggesting that a lack of additional capital is not the only constraint to greater investments, at least in the short run. While it is important to increase the pipeline of possible projects through DFI activities and standard development policies, it is equally important – from a transformation perspective – to understand and maximise the impact of an investment once it has been made.

… so DFIs need to step up their thinking on how to collaborate to enhance the impact of an investment project during its life-cycle

The literature on FDI linkages and productivity spillovers is relevant to how DFI investments may spillover to the rest of the economy. While we cannot observe the precise channels of productivity spillovers from DFI investment to the rest of the economy, the literature identifies five pathways that signal *how* such spillovers might occur (te Velde, 2019).

1. The presence of superior knowledge inside a firm (firm-specific assets) supports greater spillovers to the local economy, but these spillovers are not automatic or free.
2. One of the clearest ways in which knowledge flows between foreign and local firms is through buying and selling – that is, direct contact through backward and forward linkages.
3. Productivity spillovers are greater when local firms have a larger knowledge stock to begin with, such as human and technological (or absorptive) capabilities, because firms need to learn how to learn and adapt. This can be a short or a long process.
4. Local firms acquire and apply knowledge on process and product innovation by imitating practices in DFI investees, e.g. through labour mobility. There may also be indirect spillovers on governance through increased interactions between DFI firms and policy-makers.
5. Enhanced competition provides further incentives for firms to upgrade as long as they have the means to do so (e.g. access to finance). This can also lead to lower prices.

These pathways are shaped by public actions, including the actions of DFIs. Based on an understanding of these spillover processes, actors can address market and coordination failures in infrastructure; financial sector development; human-resource development; technological development; investment promotion; and the alignment of domestic regulatory frameworks with linkage development. DFIs have specific competencies that can help to make this happen.

Some DFIs have raised their ambitions in recent years. For example, the five-year strategy of the CDC Group launched at the Overseas Development Institute (ODI) in 2017 states that CDC will now 'invest to transform whole sectors' as well as investing in individual projects and will, according to its Chairman, Graham Wrigley, 'solve market and sector problems'. This shift has the potential to be truly transformative, given that so much action on economic transformation actually happens at the sector level (Balchin et al., 2019).

There is a real opportunity now to turn that potential into action, even when it is challenging to do. DFIs are currently engaged in thematic areas (e.g. promoting jobs, addressing gender and climate change concerns), or are designing social or environmental impact plans for investee companies on a transactional basis. They are far less engaged, in strategic terms, than development actors.

Additional activities for DFIs

Three types of actions would fit the role of DFIs as development actors.

1. *Coordinating investments*: investments in manufacturing or agricultural firms would benefit from simultaneous investments in transport and energy infrastructure. DFIs can think in terms of clusters of investments. For example, garments firms in a Kenya export processing zone would benefit from investment in port infrastructure in Mombasa. DFIs are well placed to help overcome coordination failures across the private sector.
2. *Developing linkage programmes:* the active promotion of local linkages and the raising of local procurement through linkage programmes raises the profitability of the investee company and can help the local economy. Increased local linkages can happen, but depend on sector and policy context, and require focused attention and experimentation. DFIs are ideally placed to support this process, working with other development actors.
3. *Policy influence:* DFIs should continue to collaborate with governments to support national innovation systems (including trade facilitation, competition policy, better state–business linkages) and improve the relevance and quality of public expenditure. For example, some DFI investments in East African cement became unprofitable because, in part, governments restricted imports and failed to provide cheap and sufficient energy. Reversing this pattern requires a change in government action, for which DFIs could provide relevant insights.

Conclusion

DFIs are well placed to advance the interests of the private sector and help build markets when it is in the interest of the country as a whole. However, to do so, DFIs need to do more than make good investments; they also need to maximise the impact of their investments once made. This requires the development of skills that go far beyond project finance.

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11 Seeking impact unicorns: why development finance institutions should set their sights on transformational change

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Abstract

Development finance institutions (DFIs) should set their sights on transformational change in poor countries. True transformation is infrequent, but it can be incredibly powerful by helping to create new industries and crowd in private capital. Companies that kick-start a process of transformational change, generate over a billion dollars of value for society, and lift large numbers of people out of poverty could be described as 'impact unicorns'.

AgDevCo has started to map the channels through which its investees generate indirect impact. Using a networks approach, we have mapped a macadamia farm in Malawi and a seed-potato producer in Zambia where there are early signs of transformational change. As DFI spending comes under increased public scrutiny, it is increasingly important to look beyond narrow measures of impact (such as job creation) and demonstrate how impact spreads out across an economy over the long term.

Introduction

Venture capitalists try to invest in 'unicorns': start-up companies that go on to reach $1 billion valuations. They are rare – there are reported to be only about 350 unicorns globally (CB Insights, 2019) – but they can revolutionise industries and deliver significant financial returns for their early investors.

In development finance, we argue that a company that has catalysed transformational change in a low-income country and created over a billion dollars of value *for society* in a way that has lifted large numbers of people out of poverty represents a similar level of success. You might call such a company an 'impact unicorn'.

The Overseas Development Institute (ODI) defines transformational change as 'a continuous long-term process of shifting labour and other resources from lower- to higher-productivity activities, facilitating labour productivity growth over a sustained period […resulting in…] more diversified and complex productive activities' (Balchin et al., 2019: 7).

DFIs should seek investments that are capable of kick-starting that type of process. It should also be recognised that due to various market failures, investments in pioneering companies may not always deliver the highest financial returns. In some cases, the pioneer may even be loss-making initially.

How can we encourage the creation of more impact unicorns?

First, we need to be able to point to successful examples, so that we are clear about what type of change we are trying to deliver.

CDC Group's investments in the Kenyan tea sector in the 1960s, for example, contributed to the country becoming the world's largest tea exporter. In Bangladesh, the garment industry,

which today accounts for $30 billion of exports each year, can be traced back to a joint venture between Daewoo and a local firm in the 1970s.

More recent examples of firms that appear to be on track to catalyse new industry models or deliver impact at significant scale are M-Kopa, an off-grid solar company in East Africa, and EthioChicken, an Ethiopian poultry business that sells improved chicken breeds to rural households.[1]

Second, investors need to get better at spotting and nurturing companies that have transformation potential. DFIs have long experience of investing in low-income markets and a mandate to deliver impact. They should, therefore, be well-placed to build investment portfolios that include companies capable of driving systemic change. To improve the chances of success, DFIs and impact investors should share lessons more regularly about what has worked well in the past.

Third, there is a need for patient capital to support pioneering companies. As Collier et al. (2019) have argued, there is often a first-mover *disadvantage* in low-income countries. Pioneering companies face high upfront costs – such as developing a new business model, training local management, or establishing new routes to market – that followers can largely avoid.

The Daewoo joint garments venture in Bangladesh lost 115 out of 130 of its expensively trained managers to new domestic competitors within one year of Daewoo abandoning the agreement (Kabeer and Mahmud, 2004). CDC Group's investments in the Kenyan tea sector made only modest returns (Tyler and Dixie, 2012). M-Kopa and EthioChicken both relied on grants in their early years alongside more commercial investment. Reviewing a decade of experience in off-grid solar, M-Kopa's founder has written about some of the challenges facing first movers (Moore, 2019).

Successful pioneers can generate disproportionate impact. But the costs and uncertainties of being the first player in a new industry may deter private investors. As Profressor Sir Paul Collier said in a speech at a Norfund conference: 'No one wants to be firm number one … If everyone wants to be firm number two, what happens? Nothing. You stay stuck' (Collier, 2018).

How AgDevCo tracks transformation

Governments are increasing funding support to DFIs and encouraging them to do more in low-income countries, even at the expense of portfolio returns that are lower than expected. This shift in approach brings a higher risk of investment failure and greater public scrutiny. In response, the development finance community needs to do more to explain and justify how it creates impact; going beyond narrow metrics such as job creation.

At AgDevCo, we are experimenting with ways of mapping the channels through which our investments deliver indirect impacts. We recently partnered with IPE Tripleline to analyse the economic networks around a macadamia farm in Malawi and a seed-potato producer in Zambia.

Tropha is the only fully irrigated macadamia farm and processor in Malawi. The company has also built an extensive out-grower network, buying macadamia, chillies, and paprika from over 3,200 farmers; almost half of whom are women. AgDevCo was an early investor in Tropha in 2014.

In Zambia, Saise Farming Enterprises Limited is the country's first commercial seed-potato producer, established by AgDevCo in 2017 in partnership with a Zambian potato company, Buya Bamba. It now supplies most of the Zambian seed-potato market, which previously relied on low-quality imports from South Africa.

The researchers used a network analysis approach and group discussions with employees and smallholder farmers to map the value chains and the financial flows around Tropha and Saise. The key findings were as follows.

- Both companies hired local contractors and purchased agricultural inputs from local vendors. In 2018, Tropha spent $2.6 million mainly on construction and electrical work. Saise and its related company Katito spent

1 AgDevCo is an investor in EthioChicken's Rwandan company, called Uzima, which started in 2017.

over $3 million over the same period on local contractors. Those flows remained largely within the respective local economies.
- In 2018, wages of approximately $145,000 were paid to local employees and around $300,000 of additional income was generated for smallholder farmers. This is creating spillover effects in the local community including spending on goods and services from local businesses and on school fees, which is increasing attendance rates.
- There is early evidence of systemic impact. The success of Saise has already led to replication by a new seed producer in the south of the country and Buya Bamba is now planning an investment in a frozen chip facility. Tropha has recently built a chilli and paprika powder mill and has extended its irrigation system to supply 100 hectares of community land.

This type of mapping allows us to visualise how our investees interact with their communities and other actors in the value chain. It also helps us explain the depth and breadth of our impact to our funders.

An annual snapshot is helpful, but transformation is a dynamic process. While recognising there are challenges around attribution, we will track how these impacts develop over the long term as they spread out and multiply.

What does success look like?

If a portfolio of investments like Tropha and Saise can deliver sustained, broad-based impact while at the same time returning capital to be recycled, that would already represent a highly efficient use of aid. To make the claim of genuine transformation, however, we need to see replication effects and the leverage of large volumes of private capital.

We do not know how the macadamia industry in Malawi or the potato value chain in Zambia will develop over the next decade. We will, however, continue to monitor the indirect impacts of our investees as we support them as an investment partner over the years to come. Maybe one day we will be able to look back and say that we helped to build an impact unicorn.

Conclusion

The venture capital industry has created numerous unicorns, companies such as AirBnB, Instagram, WhatsApp and Uber, which have changed the way we live our lives. While recognising that only a small number of investments are likely to deliver truly transformational change, DFIs and impact investors could take a page out of the same book. We should set our sights high and seek impact unicorns – companies that transform economies, generate large economic multiplier effects, and reduce poverty at scale.

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12 Not just any capital: why development finance institution intervention through foreign direct investment is different

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Abstract

Development finance institutions (DFIs) blend their resources with private capital to promote development. But it makes a huge difference what type of private capital DFIs blend with! This essay argues that development outcomes deriving from blending with foreign direct investment (FDI) are fundamentally different from those deriving from blending with other types of capital. This is because FDI – in contrast to other types of capital – is accompanied by propriety assets and competencies that only can be accessed through FDI. This essay discusses the potential implications of this argument for DFI strategies and impact measurement methodologies.

Introduction

DFIs typically blend their resources with those of private investors to achieve development outcomes such as economic growth, environmental improvements, job creation, skills upgrading or economic restructuring. The private investors are local firms and entrepreneurs, foreign direct investors (sometimes labelled 'multinational corporations' (MNCs)), equity funds, pension funds or banks. Discussions about the development impact of DFIs and its measurement often ignore the fact that blending with FDI is fundamentally different from blending with other types of private capital.

What is FDI?

FDI is investment made to obtain management control of a foreign activity and is the defining characteristic of the MNC. FDI, as opposed to other types of capital such as portfolio investment, insurances, guarantees, or loans, comes with its own package of assets and competencies. Often, this package is not accessible to the host country through any other means than through FDI because the package is proprietary to the MNC and/or because it is embedded in the fabric of the MNC. The hard-to-acquire assets and competencies of MNCs include brands, technologies, know-how, market access, supply chain linkages and distribution networks.

Why is FDI important to developing countries?

FDI offers huge opportunities for developing countries: FDI in low- and middle-income countries totals five times the amount of official development assistance (ODA) and is several times larger than loans and portfolio investment. FDI, like other types of private capital, may fill a financial gap in developing countries and contribute to capital formation. But unlike other types of private capital, FDI is accompanied by assets and competencies that are vital to developing countries and that might be more valuable than the capital inflow alone.

FDI may, for example, bring in technology, organisation, and market access that make it possible to exploit natural resources such as minerals or oil and gas. Or FDI may organise

advanced transport and trade infrastructures that may enable foreign and local firms to engage in cross-border trade. Or FDI may bring in renewable energy technologies and solutions that will allow developing countries to reduce their carbon footprint. Very often, the investment project created by the FDI will be the tip of the iceberg in terms of development impact as some MNC competencies and assets may diffuse to local companies through linkages and spillovers. FDI may also have negative impacts on developing host countries. MNCs will often use their market power to crowd out local capital and jobs and foreign competitors. And large proportions of FDI relative to local capital formation can lead to surrender of control over important spheres of host-country economies.

How do DFIs work with FDI?

Given the key role of FDI in development, it makes sense for DFIs to harness its development potential. Consequently, most European DFIs work more or less explicitly with foreign direct investors.

DFIs can facilitate and shape the development impact of FDI in various ways:

- Co-financing MNC FDI through equity, guarantees or loans
- screening FDI to promote investments that produces maximum development impact such as those that have catalytic effects
- offering advice to MNC co-investors on finance, entry strategy, corporate governance, corporate social responsibility (CSR), or partner choice
- setting minimum standards for performance of the FDI project, such as labour, environment and safety standards
- measuring and reporting on the FDI's development impact.

DFIs can more effectively influence the development orientation of an FDI project if they, as they frequently do, take a seat on the board of the project.

DFI engagement with foreign direct investors is justified by information and coordination failures that cause an 'under-supply' of FDI in certain countries and sectors and in relation to certain types of firms. The engagement is also justified when DFIs use their leverage as co-investors and lenders to promote positive development outcomes from FDI and/or prevent negative development externalities. Finally, while DFIs tend to co-invest with MNCs deploying proven technologies and business models in developing countries, there are examples of DFIs entering FDI projects as venture capitalists, co-funding innovative but risky investments that might not otherwise have come off the ground.

What are the advantages for DFIs of working with foreign direct investors?

The implication for DFIs is that they must consider the comparative advantages of working with various forms of capital with great care. If the purpose of DFI intervention is simply to increase investment in the recipient country, DFIs would be able to engage with any type of private investor. But, if the purpose of DFI intervention is to mobilise MNC propriety/intangible assets and competencies, the most effective (and often only) mechanism will be to engage directly with the MNCs; either as co-investors, guarantors, or lenders. Frequently, it is exactly the package of assets and competencies accompanying the FDI, rather than the FDI itself, that is sought by developing countries.

What are the implications for impact measurement methodologies?

In terms of measuring development impacts, it is crucial that DFIs demonstrate additionality when they co-invest with MNCs, as this type of intervention is exceptionally sensitive to public scrutiny. Hence, DFIs need to develop methodologies that allow them to trace development impacts of their intervention to the specificities of the FDI, i.e. development impacts that derive from the introduction of technologies and competencies to the host country that would not have been available without the FDI. For this measurement, classical econometric and input-output (IO) estimation of impacts will be inadequate given that such methodologies fail to treat FDI differently from other types of capital.

Conclusion

DFIs have expanded their activities significantly in recent years and have adopted new and innovative ways to blend with private capital including with private equity, impact investors, pension funds or banks. This process is, in all likelihood, leading to a relative decline in interventions made directly in partnership with foreign direct investors, i.e. MNCs. If the purpose of DFIs is to fill financial gaps in developing countries, this trend need not constitute a problem. But, if the purpose of DFIs is to assist in bringing MNC propriety/intangible assets and competencies to developing countries, blending with FDI is unavoidable.

Distributional impact of DFI investment

13 The impact of development finance institutions: what we know, what we don't and how to improve

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Abstract

Studies on the impact of development finance institution (DFIs) remain limited in the scope of their analysis of impact. Evidence suggests that DFI investment stimulates gross job creation,[1] increases the installed energy capacity of countries, and increases access to finance by small- and medium-sized enterprises (SMEs), which has positive direct, indirect and induced effects. However, we know far less about who gets these newly created jobs, their impact on poverty-alleviation, and the affordability of the generated energy or who accesses it. This lack of detail undermines the robustness of the prevailing theory of change for DFIs. This essay argues for more and better data on the true impact of DFIs.

Introduction

Over the past year, researchers at the Overseas Development Institute (ODI) have been working with the United Kingdom's Department for International Development (DFID) to assess the state of the literature on DFI impact (Attridge et al., 2019).[2] We analysed the evidence base linking DFI investment to increased incomes, to increases in access to goods and services, and to distributional impacts on poverty and employment for women and youth.

Our findings suggest that evidence that DFI investments lead to increased incomes is robust, based on the theory of change (ToC) put forward by DFIs. However, evidence on the impact of DFIs on increasing access to goods and services is much weaker and limited in terms of the breadth of goods and services provided. Literature on the distributional impacts of DFI investments on different segments of the population is extremely limited and needs to be strengthened as DFI impact reporting faces increased scrutiny given that DFIs have a growing role in the development finance architecture and are attracting greater investment.

What we know: jobs and energy provision[3]

We first examined the literature on links between rising income and DFI investment; however, such in-depth analyses simply do not exist. As most of the impact literature focuses on job creation, we used job creation as a proxy indicator for

1 In general there is no clear evaluation of net and gross employment creation (i.e. taking into account potential displaced employment).

2 Our study is based on 43 relevant pieces of literature that addressed (i) the question of DFI impact on incomes and access to goods and services; and (ii) met the quality standard for inclusion in a DFID Rapid Evidence Assessment.

3 We found a limited body of evidence to suggest that DFI investments in the financial sector have increased access to finance, but we were not able to draw any definitive conclusions as the findings of the literature were inconsistent.

increased income, working from the proposition that many of the jobs created directly by DFI investments are in the formal sector and that incomes increase as workers move from the informal sector into these new jobs, or move from unemployment to employment (El Badaoui et al., 2010). Essentially, we worked with the generic ToC that DFI investments in the private sector lead to jobs and economic growth and that this, in turn, leads to higher incomes.

A robust body of evidence indicates that DFI investment generates jobs. Of the 28 studies that discuss job creation included in our analysis, only one case in one comparative study suggests that job creation may not have been attributable to DFI investment. The rest of the evidence points consistently to direct and indirect job creation as a result of investment.

Most of these studies focus on investments in the energy sector and provid insights into the temporary and permanent jobs associated with the construction of infrastructure, as well as substantial indirect employment estimates resulting from these investments. In addition, a quarter of the studies included in our analysis focus on DFI investments in the financial sector and provide a multitude of examples of DFI funding to local banks that have enabled them to expand their SME lending portfolios, and have enabled SME borrowers to expand their operations and create new jobs.

Another area of broad agreement in the literature relates to DFI investment increasing the provision of energy. Studies on energy sector DFI investments present consistent evidence that these projects contribute to the installed energy base and that the resulting increase in installed capacity has reduced energy prices, improved the reliability of energy supply, and increased gross domestic product (GDP). Although there are issues in some of the studies in terms of how much of the installed capacity should be attributed directly to DFI investment, the evidence of increases is consistent.

What we don't know: poverty, gender outcomes and access to energy

While we know that DFIs purport to target their investments, at least partially, to sectors that reduce poverty directly or indirectly and to poor countries, the evidence base on DFI effectiveness on fighting poverty is weak. The limited number of studies that discuss poverty focus on the potential poverty-alleviating impacts of investments with no *ex-post* analysis to determine if this potential came to fruition.

This lack of focus on measuring the impacts on poverty is confirmed by the fact that only 2 of 43 studies included in our analysis looked solely at investments in low-income countries (LICs). What is not clear from our analysis is the reason for the absence of analysis. Is it because there are fewer investments in these countries?[4] Or is it simply more difficult to carry out studies in LICs? The lack of answers to these questions remains a significant gap in the DFI literature.

Evidence that DFI investments increase female employment in an equitable way is also inconsistent. Looking at DFI investments in the financial sector, we found analyses that note greater levels of female employment in SMEs supported by DFI investment, but also major disparities in the proportion of new jobs going to women: from 5% to 85% of jobs.

One such study finds DFI-supported SMEs creating a cumulative 1,170 full-time jobs, of which only 63 were for women (IFC, 2014).[5] Analyses that focus on investments in manufacturing sectors find that many of these firms had workforces that were at least 70% women, but do not discuss how many new jobs for women were created. While we are now more aware than ever of the importance of increasing women's participation in the formal labour force in developing economies, the DFI literature suggests that efforts by investors are lagging behind in their support for such participation.

4 See Attridge and Engen (2019) who argue that the potential of blended finance (i.e. DFI investment) is hindered by factors such as poor investment climate, lack of investable opportunities, and the low appetite for risk among many DFIs.

5 The study analysed a sample of 113 SMEs that in 2009 obtained loans from Habib Bank Ltd (HBL), an IFC client bank from Pakistan.

As mentioned, while there is a robust evidence base to suggest that DFI energy sector investments have led to an increase in the installed energy base and lower prices for energy, the literature does not tell us whether these investments are leading to greater access to energy. Although we acknowledge that energy transmission in most countries is the responsibility of the national government, the DFI literature we analysed is mostly silent on how many people actually access the newly generated energy and on its affordability.

In the few studies that mention end-user access, there are discrepancies between estimates by the DFI concerned and estimates by independent evaluators (Slob et al., 2017). These discrepancies underline the need for better understanding regarding actual access to and affordability of electricity if DFIs are going to use access to electricity as a meaningful goal for their investments (Norfund, 2016; CDC Group, 2017; Proparco, 2017).

How to improve: data collection and methodologies

What is most evident from our work with DFID is that the DFI literature is not as well developed as literature on similar subjects, such as aid, foreign direct investment (FDI) or trade. For us, the main reason for this gap is the authorship and intended readership of the studies. The DFI literature has been written by policy analysts for a policy audience. Academics and independent researchers have yet to commit their time and resources to studying DFIs, which makes the literature dependent on the information that DFIs and their clients are willing to share.

In addition, the measurement of impact has been limited to the impacts that DFIs want to report; not all of the impacts observers find important. DFIs, in collaboration with their stakeholders, could provide more resources for the independent collection and verification of data across relevant impact groups, which could increase the robustness of impact results and provide actual evidence to back up important claims of, for example, poverty alleviation via DFI investment.

Even with better data, the methodologies of DFI impact need to be more rigorous. Many of the studies captured by our analysis fail to mention a counterfactual (i.e. what would happen if the DFI didn't invest),[6] fail to adequately acknowledge the possibility of omitted variables that could explain impact, and fail to wrestle with the idea of how much of the impact is attributable to the DFI investment. While this complexity requires additional resources, addressing it would strengthen the reliability of DFI impact reporting and reinforce the belief that the ToC supported by DFI investment is actually underway.

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14 Development finance institutions: a complement, not a panacea

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Abstract

Increasing investment in development finance institutions (DFIs) means that they have an increased responsibility to support the achievement of the Sustainable Development Goals (SDGs) and are under increased pressure to demonstrate positive impact on development. However, little is understood about how DFI investment supports the eradication of poverty and enhances the welfare of poor and marginalised communities. This essay explores several reporting gaps and the need to strengthen the accountability of DFIs to the communities they aim to help. It argues that DFIs have an important and specific role to play, but what they can offer should not be seen as a panacea for every development challenge.

Introduction

Flows from DFIs to support private sector operations have grown rapidly since the start of the millennium and are of increasing influence in the development architecture. The combined portfolio of committed investments by members of the Association of European Development Finance Institutions (EFDI) totalled €37.2 billion at the end of 2017, representing a more than three-fold increase over the past decade from €10.9 billion at the end of 2005 (EDFI, 2019). But investment in DFIs means that they face greater scrutiny and have a greater responsibility to both deliver and report on positive development outcomes.

Where do DFIs fit in development?

DFIs have long been outsiders in the development discourse. Until recently, and despite having a development mandate, they have not occupied a major space in international discussions on financing for development or development effectiveness. Even though they are not actively engaged in the development community, that community has given them a central role in the Addis Ababa Action Agenda as well as other development-focused commitments and responsibilities.

In recent years, DFIs have become victims of their own success as their portfolios continue to grow and decision-makers in donor countries look for 'budget neutral' approaches to development cooperation. This can be seen in discussions at the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD DAC) on how to include private sector instruments (PSI), such as DFI investments, in the reporting of official development assistance (ODA) (DCD, 2017). More aid is being channelled through these institutions, while they are under increased pressure to demonstrate their development impacts.

DFIs have responded to this pressure by trying to account for any positive ripple and spillover effects created by their investments through complex causal models to demonstrate impact (IFC, 2017). This complexity poses some interesting challenges, but often ignores fundamental questions that matter for development; such as how their work has supported the goals of ending poverty and improving the welfare of poor and marginalised communities.

There is no doubt that DFIs have a strong positive impact in some areas, including the

provision of capital to innovative sectors or credit to constrained micro, small and medium-sized enterprises (MSMEs). However, greater clarity is needed on their impact on areas normally associated with public service delivery. Investments in health and education, for example, do not reap the immediate commercial returns most DFIs seek and are usually seen as a responsibility of the public sector, but a healthy and educated workforce is crucial to the success of their investments (Webster, 2015; Malouf Bouse, 2019).

The clear complementarity between the work of DFIs with their clients and that of more traditional development agencies should be made far more explicit. One should not come at the expense of the other, and the increasing financial resources available to DFIs should not lead to a decrease in grants for public service delivery in areas such as health and education. DFIs themselves should also make it clear to decision-makers that they are not a panacea, and that there are areas where they will not be able to deliver development results.

Clear reporting gaps

DFIs face important challenges when it comes to designing, implementing, monitoring and reporting their investments, particularly if they are to be seen as development actors contributing to the achievement of the SDGs. These challenges are nothing new as Eurodad published its first report on some of these issues in 2012 (Kwakkenbos, 2012) with many other organisations also continuing to monitor DFI operations (Bracking and Ganho, 2011; 11.11.11, 2012; Thilaskasiri et al., 2012; CPDE, 2016; Jespersen and Curtis, 2016).

The discussions at the EADI Impact Conference in March 2019 in Brussels focused a great deal on reporting and indicated that DFIs are increasingly being asked to demonstrate impact that goes beyond traditional metrics of job creation and climate mitigation. Most DFIs refer to SDG 8 on decent work and economic growth and the decent work agenda that has job creation, social protection, rights at work and social dialogue as its main areas of contribution. However, the number of DFIs that either measure the impact of their investment on decent jobs explicitly or include decent jobs as part of their investment decision-making process is still quite small. Very few reflect on the net effect of their activities, i.e. how many jobs are created minus the ones lost because of a given investment.

One area for improvement is the inclusion of data disaggregated by gender, which could assess the impact of DFI operations on gender equality. As research shows, gender-responsive investments are vital for a meaningful contribution to the promotion of gender equality and women's rights (Gender and Development Network, 2019). Without this data on these actual impacts, it is impossible to know what role DFIs are playing.

Accountability to communities

There is much talk about DFIs' contribution to the SDGs and the importance of evaluation. However, a crucial aspect that was missing from the EDFI Impact Conference discussion was the impact of DFI investments on the communities and countries where they operate and how they engage with these communities at different stages of the project cycle.

DFIs operate within narrow parameters that are often defined by their relationships with their clients; an understandable by-product of their operational model. DFIs could benefit from moving beyond this myopic view and coordinating with other development actors to look at the impact of their clients and investment strategies on universally agreed development objectives within these communities. To be fully accountable for the impact of their investments, DFIs should reassess their consultation, complaint and compensation mechanisms.

Conclusion

DFIs are not solitary actors that operate in a vacuum; they have an important and complementary place in an ecosystem of approaches to development cooperation. They are part of a wide array of tools and strategies that governments have at their disposal to address development challenges. Like any other development modality, there are areas where they should be used and areas where they are not as effective as other options or are even

detrimental (Geary, 2015). Looking ahead, DFIs need to be more vocal about what they think they can and cannot achieve in terms of development and the SDGs. They also need to engage more with the countries and communities where their clients operate.

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DFI impact frameworks and tools

15 Development effects of foreign direct investment in the realm of the New Development Paradigm: implications for development finance institutions

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Abstract

This essay is a contribution to the ongoing work of development finance institutions (DFIs) to further develop methodologies that capture a broader range of development effects from DFI-supported investments. Our point of departure is foreign direct investment (FDI) where DFIs invest alongside multinational enterprises (MNEs), but the framework may also be relevant for other types of DFI investments.

We argue that DFIs face increasing explicit requirements from their home governments to support sustainable development through their investments, which calls for a conceptual framework to understand the potential links between FDI and sustainable development.

Introduction

Home and host-country governments have strong expectations about the development effects that can be achieved through a development strategy centred on FDI (Oetzel and Doh, 2009; Narula and Pineli, 2019). These expectations are, for example, reflected in the mandating of national DFIs by their governments to also work through FDI (te Velde, 2011) as well as in competition among host-country governments to attract FDI (Narula and Pineli, 2016).

Since the 1980s the perception of development has evolved from a narrow focus on structural adjustment to ensure economic growth, towards a focus on sustainable development that, by most definitions, spans economic, social and environmental development issues (Rist, 2014). According to Dunning (2006) and Dunning and Fortanier (2007), this evolution can be explained as a transition from the Old Development Paradigm (ODP) to the New Development Paradigm (NDP). The Millennium Development Goals (MDGs) and later the Sustainable development Goals (SDGs) are expressions of the NDP, which also highlights the importance of the private sector and cross-sector partnerships to realise development goals.

Discussions in academia about the relationship between FDI and host-country development are long, controversial and focused mainly on economic development (Rugman and Doh, 2008). As the perception of sustainable development is broad, complex and features built-in trade-offs between objectives, it is necessary to study how FDI can contribute to these broader end-goals and how DFIs can support this contribution: the focus of this essay.

First, we highlight some of the characteristics of the NDP compared to the ODP before presenting a framework to capture the development effects of FDI in the realm of the NDP. Finally, we set out some implications for DFIs.

Characteristics of the NDP vs. the ODP

The NDP is characterised by having sustainable development as its end goal, whereas economic growth was the goal for the ODP. While the concept of economic growth is somehow well defined, however, the concept of sustainable development suffers from being ambiguous and is seen, therefore, as hard to operationalise (Rist, 2014; Kolk, 2016).

Institutions are central to sustainable development

Institutions are not of major interest in the ODP, while they play a key role in the NDP. Institutions are the formal and informal institutions of the host country and include both laws and regulations (formal institutions) and the norms and behaviours that guide their implementation (informal institutions). According to the NDP, one of the most important preconditions for sustainable development is institutional development to, for example, influence the development of laws and institutions that underpin economic growth while safeguarding social and environmental standards (Dunning and Fortanier, 2007).

Firms are 'active' development actors

In the ODP, the private sector tends to be treated as a homogenous group, with any development effects something that happens as an unintended side effect of its operations rather than the result of its active and intentional efforts (Lee and Gereffi, 2015). In the NDP, however, the private sector is assigned a key role in achieving the SDGs (Scheyvens et al., 2016). In the NDP firms are expected to act proactively for development – as active development actors – and this can be reflected in their corporate social responsibility (CSR) activities, including their focus on developing products and services to solve societal challenges.

Framework to capture development effects in the realm of the NDP

Building on Dunning and Fortanier (2007) and the concept of the NDP, we have surveyed the economic literature on the development effects of FDI combined with CSR and institutional theory to develop a comprehensive framework for assessing the impact of FDI in developing countries. This framework may prove useful for DFIs.

The framework makes a distinction between effects at three levels: extra-firm, inter-firm and intra-firm. Extra-firm effects are those that reach beyond the firm and other firms and can wield influence at a systemic or macroeconomic level. Inter-firm effects are defined as those that influence host-country firms (whether a single firm or a whole sector). Intra-firm effects are defined as those that influence people working at the affiliate and the environmental footprint of the affiliate. Separating these three levels facilitates the assessment of potential development effects from investments.

The framework further distinguishes between the 'active' and 'passive' mechanisms that generate certain effects. Passive mechanisms are those identified in the economic literature being where development effects occur mainly as an unintended side effect of the investment from the point of view of the MNE. In contrast, active mechanisms refer to societal engagement and interest from part of the MNE that has a positive influence on host-country development.

Extra-firm effects

Looking at effects that are generated passively, we see that MNEs can influence the host country in terms of foreign capital, growth in gross domestic product (GDP) and more (for reviews see Caves, 1996, and Meyer, 2004). These economic mechanisms can generate negative effects in cases where repatriation of profits and transfer pricing reduce the host country's capital savings and tax basis (Dunning and Lundan, 2008). The MNE can also attract more FDI to the country from other investors through demonstration effects (Narula and Pineli, 2019).

Passive mechanisms (economic and profit orientation) can give MNEs influence on communities living close to the location of the affiliate in terms of, for example, increased job opportunities (Ferdausy and Rahman, 2009). They can also influence consumers by bringing products and services to the market and can seek to influence laws and regulations affecting their business (Cantwell et al., 2010).

The active mechanisms of MNEs that can lead to extra-firm effects are very much in line with CSR practices and shared-value thinking (Dunning and Fortanier, 2007; Porter and Kramer, 2011; Kourula et al., 2017). Shared value is defined as policies and practices of companies that, on the one hand, enhance their competitiveness and, on the other, improve social and environmental development in the host countries where they operate (Porter and Kramer, 2011).

Active mechanisms can be in the form of community-oriented CSR approaches that support local development, such as a commitment to recruit staff from the local community and to support individuals in terms of their education and training (Schönherr et al., 2017). Based on insights into the challenges facing the host country, MNEs can develop and market innovative products and services to solve societal problems and improve the lives of poor people (Prahalad and Hart, 2002; Kolk et al., 2014). MNEs can engage with governments to improve social and environmental regulation in the sector where they operate.

Example: extra-firm effects

To illustrate the difference between passive and active mechanisms, imagine an investment in a hospital in Kenya.

Passive mechanisms would involve investors entering the market with a narrow, profit-oriented view. This might result in yet another hospital with generalised primary care services, with the risk of over-treating patients to increase profits or crowd out existing hospitals.

Active mechanisms would involve investors entering the market on the basis of their knowledge of the overall health care challenges of the country as well as the areas currently under-served by public or other private hospitals. Here, investors would focus on developing and tailoring hospital services to meet the overall needs of the country, such as the need for specialised treatments. Parts of the hospital services provided could also target the poor directly through low-cost treatments.

Inter-firm effects

Examples of passive mechanisms that lead to inter-firm effects refer to existing literature on the (indirect) effects of FDI, pointing to the superior knowledge and technology that MNEs can 'spillover' to domestic firms and influence their productivity. This can happen through demonstration effects. These effects can be seen, for example, when domestic firms imitate the MNE or when increased competition (resulting from the presence of the MNE) forces them to become more efficient, or when workers move from the affiliate to host-country firms and bring new knowledge with them. Host-country firms that supply to MNEs can benefit from these increased volumes the MNEs require.

Negative inter-firm effects can take place when host-country firms are crowded out of the industry as a result of increased competition caused by the presence of the MNE (Blomström and Kokko, 1998; Görg and Strobl, 2001).

Active mechanisms express themselves in the MNE's CSR strategy to engage actively in local supply chains and support host-country suppliers to upgrade. By building these linkages, MNEs can play a key role in strengthening local firms through technical assistance and other forms of support. These actions may include extending codes of conduct and social and environmental standards to suppliers, which can, in turn, enhance the social and environmental standards of local firms (Christmann and Taylor, 2001; Kaplinsky and Morris, 2017).

Example: inter-firm effects

One example of active and passive mechanisms that produce inter-firm effects could be an investment in a coffee roaster and exporter in Kenya.

Here, a passive mechanism would lead the MNE to buy coffee from the most cost-efficient available suppliers, which could increase the volume of coffee sold by coffee producers. Other exporters might imitate some of the practices of the MNE and perhaps start roasting in the country as well (generating more value-added in the country), but it happens as an unintended side effect.

Table 2 Analytical framework: development effects in the realm of the NDP

Level of effects	Passive mechanisms	Active mechanisms
Extra-firm	Foreign capital, tax revenues, attract more FDI to the country/sector, GDP growth, trade balance effects.	Community development through tailored CSR projects and collaboration with local authorities.
	Effects on local communities surrounding the affiliate.	Strengthen social and environmental knowledge, skills and priorities of policy-makers and regulators. More sustainable laws and regulations.
	Changes in laws and framework conditions.	
	Introducing new or cheaper products and services.	Innovative products and services to solve societal problems and improve the lives of poor people.
Inter-firm	Effects on host-country firms' productivity and industry concentration through demonstration effects, competition, labour turnover and linkages.	Upgrading host-country firms in terms of value added, social and environmental standards though long-term strategic linkages.
		Demonstration effects to competitors increasing social and environmental standards in the industry.
Intra-firm	Jobs, training, above-market technology.	Environmental and social standards, decent jobs, codes of conduct, green technology.

Source: authors, drawing on Dunning and Fortanier (2007).

A strategic CSR approach sees the MNE making investments in strengthening the social, environmental and quality standards of suppliers through backward linkages as an integrated part of its business model. Such an effort could also include micro-finance to enable farmers to invest in their production. The development effects could result in suppliers experiencing not only the increased volume of their produce, but also its increased value.

Intra-firm effects

Passive mechanisms, i.e. 'business as usual' approaches can lead to new jobs, training of employees, and the introduction of technology by the MNE. These can all improve people's incomes and competencies and, therefore, their situation.

Active mechanisms at an intra-firm level reflect in the MNE's CSR policies at the affiliate e.g. high environmental and social standards (Fortanier and Kolk, 2007). Most MNEs pay higher wages than host-country firms (te Velde and Morrissey, 2004) and MNEs can generate decent jobs that promote above-market, non-wage working conditions such as insurance and paid overtime (OECD, 2008). MNEs can also introduce green technology (Kolk et al., 2018).

Example: intra-firm effects

One example to illustrate passive and active mechanisms at an intra-firm level could be an investment in a hotel in Kenya.

Passive mechanisms can lead the MNE to apply their global model for human resource (HR) practices without having a particular eye on the precise needs of the employees of that specific host country. Global HR practices could still be above market standards in terms of efficiency, training and management styles, but could also build on a business model of exploiting the low wages and bad working conditions of the host country.

Active mechanisms are exemplified in the high CSR and above-market social and environmental standards introduced at the hotel. Such a business strategy builds on an assessment of the specific needs of employees and takes particular care around, for example, tribal issues, gender issues or particular educational or training needs.

Implications for DFIs

At present, DFIs work to identify the positive and negative links between their investments and sustainable development. In this context, our framework may prove very useful for three reasons.

1. The framework intends to provide a more holistic and integrated view on development effects in terms of considering both potentially positive and negative effects.
2. The starting point is for DFIs to have some knowledge and insights about the development challenges of the sectors and countries where they invest. Based on this knowledge they can screen and engage in partnerships with MNEs that have the innovative power and interest to develop solutions to those challenges.
3. The framework specifies the levels where the investment can generate effects. Based on an assessment of the levels where an investment is likely to generate the most valuable effects, DFIs and MNEs can take action to ensure that this potential is integrated into the business strategy.

Based on the distinction between passive and active mechanisms, DFIs need to work with MNEs that are interested in and capable of driving societal engagement. This distinction also implies that DFIs should shift their focus from compliance requirements at an intra-firm level to the expectations that MNEs will engage at the inter-firm and extra-firm levels.

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16 Measuring and managing the development impact of an investment portfolio: the Development Effectiveness Rating (DERa)

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Abstract

Guided by the Sustainable Development Goals (SDGs), Deutsche Investitions- und Entwicklungsgesellschaft (DEG), a member of KfW Group, has created and implemented a new system to measure and manage the development impact of its portfolio: the Development Effectiveness Rating (DERa). This essay outlines DEG's experience in setting up such a system, focusing on three major steps:

- defining development from a private sector perspective
- operationalising this definition via an indicator system and a rating score, and
- applying the rating score and the indicator system to manage investment for development impact.

Introduction: the need to measure development impact

The SDGs acknowledge a key role for the private sector in the achievement of the agreed targets. However, any discussion of the linkages between private sector activities and the SDGs hinges on data on development impact. It is vital, therefore, to measure the development impact of private sector investment and to manage that investment in a way that ensures the greatest possible impact on development. This is particularly true for development institutions that work with the private sector, including development finance institutions (DFIs).

Theory of change

It is only possible to measure development impact and manage investment towards that impact once we define, explicitly, what development means. With its theory of change (ToC), DEG has built a robust understanding of how DFI clients and private sector companies in developing countries contribute to development. The development of the ToC was underpinned by an iterative process that included internal interviews from top management to analysts, literature reviews on theories and empirical findings, results from evaluation studies, in-depth peer reviews and a sounding board of international experts (including KfW, Deutsches Institut für Entwicklungspolitik (DIE), the Organisation for Economic Co-operation and Development (OECD) and Steward Redqueen).

The DERa ToC starts from the activities of a DEG client (Client activity) before looking at its resulting outputs (Client output), its desired development effects (Societal outcome) and, finally, the structural changes to society or the environment resulting from the achieved societal outcomes (Societal impact). In one further step, DEG's role is incorporated into the model (DEG input) (Figure 7). This simple ToC condenses

more detailed versions that consider other specifics such as the type of client (corporate, project finance, financial institution, private equity fund and others).

The DERa: how it works

Based on the ToC, the DERa uses five outcome categories to assess the development contributions of each client and to present the development effects of investments made by DEG's clients and their contribution to the SDGs:

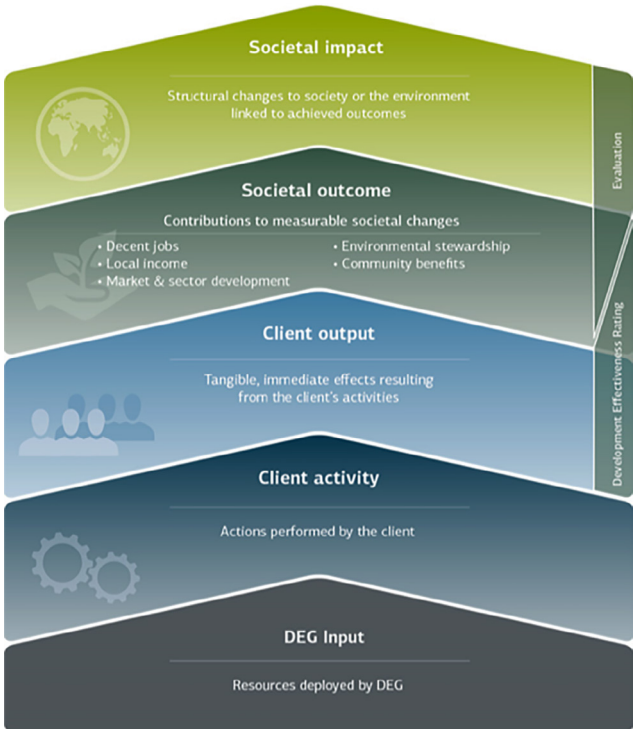
- decent jobs
- local income
- market and sector development
- environmental and social stewardship (E&S), and
- community benefits (Figure 8).

The first three categories assess major contributions to development by the private sector while the remaining two show whether a company is acting in a sustainable manner on behalf of the environment and the communities within it.

DERa indicator selection

These five outcome categories form the backbone of the DERa rating. Each outcome category is then operationalised in a two-step approach to derive a single indicator. DERa combines both quantitative and qualitative indicators to fully comprehend impact. The quantitative indicators are partly static and partly dynamic, while the qualitative indicators on E&S performance differentiate between 'do no harm' and 'do good'. The indicators selected for the measurement of development impact are, when applicable, aligned to the Harmonized Indicators for Private Sector Operations (HIPSO). The indicators have been tested by investment staff and DEG to check that they are understandable to – and reportable by – clients. Further, most indicators have been selected because they already exist in other forms of reporting, including financial reports (such as tax payments from audited annual reports) or E&S data (such as the number of jobs that are part of a DFI's general E&S monitoring). By using existing indicators, DEG can limit the reporting burden and use existing data as efficiently as possible.

Figure 7 DEG's ToC



Source: DEG (2018).

Figure 8 DERa outcome categories

Source: DEG (2019).

Creating a single key performance indicator (KPI): calibration of a rating

The DERa score consists of 150 points. 75% of the points can be achieved in the first three outcome categories that define the core development contributions; the last two categories which describe 'the way of doing business' make up 25% of the total number of available points.

The decision on how to weight the different categories and what are the maximum scores for indicators within one outcome category are taken by DEG based on the relative importance of the indicators for development. The relative importance has been determined as part of the iterative development process of the DERa including a literature review, internal as well as external peer review and expert feedback. The distribution of points is based on a representative data sample of DEG's portfolio for each indicator that showed the distribution of the different indicator values.

Figure 9 shows an example of how a company can score in the outcome category, 'Decent jobs'. Of the maximum number of 38 points that can be achieved, 20 can be achieved in the pillar '# jobs weighted by the level of decency' and nine each in the pillars '% job growth since DEG's investment' and 'Indirect job potential'. Based on the figures reported by the client, the client achieves 15 points in the first pillar, 6 in the second and 9 in the last pillar. Aggregated, the client receives 30 out of 38 potential points in this outcome category.

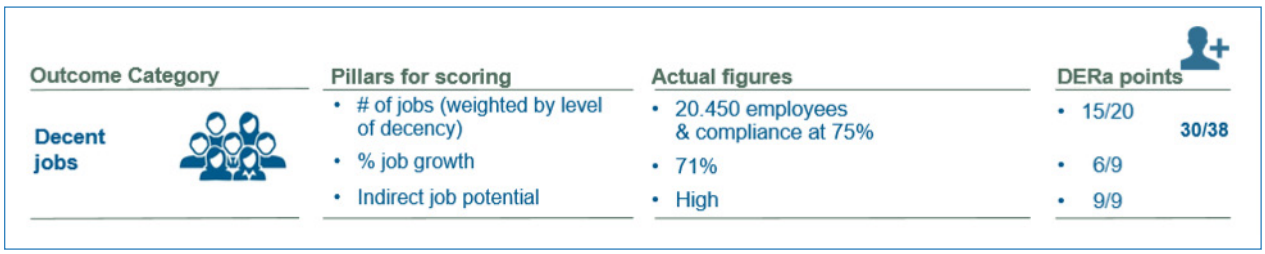
By adding up the points of each of the five outcome categories, the DERa produces a single KPI on the development quality of a single client.

No need to reinvent the wheel

When developing DERa, DEG was able to build upon existing knowledge, and in particular the following:

- the SDGs and their target system, seen as the global definition for development
- the HIPSO, developed by an initiative by international financial institutions (IFIs)
- valuable peer support, particularly within the Association of European Development Finance Institutions' (EDFI) Development Effectiveness working group
- 15 years of impact measurement by DEG's predecessor Corporate Policy Project Rating (GPR)[1] system
- DEG's internal expertise of collecting E&S indicators, related primarily to International Finance Corporation (IFC) performance standards and International Labour Organization (ILO) standards, and strategic evaluation study: *Defining and measuring sustainably successful clients and DEG's contributions to clients* (Bertoen and de Bruijn, 2015)

Figure 9 Example decent jobs calculation



Source: DEG, internal DERa documentation

1 Geschäftspolitischen Projektrating in German.

Managing investment for development impact

DEG manages the quality of its whole portfolio and for each single investment. It also has clear financial targets for its return on equity (RoE). The average DERa score is invaluable in measuring DEG's development returns. In addition, an *ex-ante* assessment of a DERa score for each investment, an expected score to be achieved in five years, and an annual DERa update enable DEG to mansage and enhance development quality for each single client.

The average DERa score for the whole portfolio shows the development quality of DEG's portfolio in a specific year. At a single-client level, DEG expects to see improvements over time. On average, however, as new clients (scoring lower than the average) enter the portfolio and previous clients (scoring above the average) leave, the average score might not alter that much. In the first years of DERa usage, therefore, DEG aims to maintain the 'steady state' of its portfolio quality.

The DERa also allows for much-needed disaggregation as it is comprised of multiple data inputs at the level of the single client. This makes it possible to compare regions or specific client groups in relation to their DERa scores and their role in supporting return on development.

On the level of the single client, DERa has two primary management functions:

- at acquisition, a baseline and an *ex-ante* estimation for the status in five years allows portfolio managers to determine whether a client supports DEG's DERa portfolio target
- for portfolio management, the DERa score shows the development potential of each client and, as the rating can be disaggregated and comparisons made for each indicator, the potential for improvement is visible up to the level of each single indicator.

DERa experience: lessons learned

DEG has been using DERa since the beginning of 2017. It is applied annually to DEG's entire portfolio and has been applied to all new commitments since January 2017, achieving 100% coverage of DEG's clients in both 2017 and 2018. The DERa score is one of the major KPIs for DEG's own overall performance and the DERa data are used for all impact-related DEG reporting, including the annual reporting on development impact (DEG, 2019).

Data quality is a prerequisite for impact management

When management and reporting are based on data, the quality of the data used is critical. The following four data quality checks are applied for DERa:

- automatic checks in the input system in case data are missing or incorrect
- automatic data consistency checks after data are released in the input system, e.g. the number of jobs and personnel expenses should have a relationship that does not result in extraordinary low or high average wages
- manual checks by the impact team for each DERa score and for the overall portfolio data
- finally, the data are approved by DEG's auditor at the close of the financial year.

A current external validation of the DERa, comparable to the validation of a financial indicator such as rating or risk-adjusted return, has approved the functioning and data quality of the DERa system.

Communications and understanding are major aspects of impact management

The DERa system does far more than generate a single KPI for management: it also results in a dashboard with the option to disaggregate portfolio-level data at the client level. This allows DEG to compare specific clients with larger client groups and gain insights into the potential for improvement. For example, a regional comparison of DEG clients in Africa and Asia can lead to lessons learned and ideas for further guidance. Another example arises where the quality of the environmental management of a client is well below the regional or sectoral benchmark: options for improvements are provided to the client manager.

Linking DERa to the SDGs

To be able to understand and report the contribution of its private sector clients to the SDGs, DERa includes an automatic linkage between the DERa indicators and the 17 SDGs. Two examples illustrate this linkage:

- a DEG client contributes to SDG 3 on healthy lives for all if they are active in the health sector, e.g. a hospital, or if they provide health benefits to employees or local communities, such as insurance schemes or local health stations.
- a DEG client contributes to SDG 17 on partnerships for the goals if they pay taxes to the domestic government, thereby contributing to domestic resource mobilisation, as defined by target 17.1.2: the proportion of the domestic budget funded by domestic taxes.

Because the DERa is applied at the client level, DEG can report explicitly on the contribution being made to the SDGs by a single client or any grouping of clients (Figure 10). DEG can, in turn, demonstrate the strength of this contribution by using the DERa indicators. For example, when reporting on SDG 17, DEG can report that its portfolio clients annually pay more than €3 billion in tax.

Figure 10 DERa indicators are linked to SDG target indicators

Source: internal DEG presentation on DERa-SDG links

Conclusion

At a time of an ever-greater focus on impact, providing investment staff with more than financial KPIs for investment performance is a solution that incentivises impact. Making the links to wider frameworks such as the SDGs is of the utmost importance. DEG is now joining forces with other interested parties so that they can share their knowledge and work together under the DERa system.

For more details on DERa, please see 'We measure development outcome' (DEG, 2018).

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17 How can development finance institutions define and support 'The sustainably acting and financially successful company'

Julian Frede, Deutsche Investitions- und Entwicklungsgesellschaft

Abstract

Companies that act sustainably while being financially successful tend to improve the living conditions of people. The main objective of Deutsche Investitions- und Entwicklungsgesellschaft (DEG) is to contribute to the sustainable success of such companies as part of its mandate as a development finance institution (DFI). A strategic evaluation study by DEG provides the first answers to three key questions:

- how do we define such clients?
- how do we measure their sustainability and financial success?
- and how do we demonstrate the contributions of DFIs?

Introduction

Companies that act sustainably and are financially successful tend to improve the economic, ecological and social conditions of people in developing countries. Examples of such improvements include the creation of more decent jobs, support of local communities by the company or, even on a global level, the avoidance of CO_2 emissions. Contributing to the sustainable success of clients is, therefore, the main objective of DEG as a DFI.

This essay examines the characteristics of clients that act sustainably and are financially successful and outlines how DFIs can best contribute to the sustainable success of their clients. There is, however, no clear-cut and broadly accepted definition of sustainable success and no standard measurement methodology for sustainable client success. DEG has collaborated with Steward Redqueen to explore these questions in a strategic evaluation study (Bertoen and de Bruijn, 2015), the findings of which we outline in this short essay.

Defining and measuring companies that act sustainably and are financially successful

Our strategic evaluation study (ibid: 2) defines a sustainably successful company as 'a sustainably working and successful company that is (1) operationally profitable, (2) financially stable and (3) competitive and that (4) complies with relevant environmental, health and safety (EHS) standards, that (5) actively manages environmental, social and corporate governance (ESG) issues and (6) acts as a good corporate citizen.'

These characteristics are combined with an underlying set of six indicators that monitor and measure sustainable client success (ibid: 6–7):

1. **Operational profitability:** 'a company that is able to improve both the top line and bottom line of its profit and loss statement (P&L).' This is crucial to sustainable success as profitable operations provide room to expand business over the long term. Without profits, business continuity is in danger.

2. **Financial stability:** 'a company with a strong balance sheet mainly reflected in solvency and liquidity levels.' Together with operational profitability, a strong balance sheet is the basis for any company's sustainable growth. A weak balance sheet (low solvency and liquidity levels) threatens business continuity.
3. **Competitiveness:** 'a company that constantly works to maintain and improve its competitive position and manages risks appropriately.' A thorough understanding of the competitive environment, innovation and proper risk management increases the chances of survival over the long term and contributes to the company's sustainable growth in both its existing and future markets.
4. **EHS compliance:** 'a company that is in compliance with relevant EHS standards.' Compliance with EHS standards is both a fulfilment of basic often contractual expectations of stakeholders such as employees or investors and an enabling factor. Non-compliance with EHS standards may result in bad publicity, fines, interruption of business or even closure. All of this affects both financial performance and business continuity. In addition, EHS compliance gives companies a sound base to start working proactively on their ESG management.
5. **Active ESG management:** 'a company that (pro)actively manages the environmental, social and corporate governance aspects of its operations.' By managing ESG proactively, companies can run their operations in a more sustainable manner and, as a result, work towards maximising their positive impact and minimising their negative impact on society and the environment. It will also help them to maximise the productivity of employees and of production resources. In contrast to EHS compliance, corporate governance is included in this definition of active ESG management because such governance is driven less by compliance with standards and far more by active engagement between company management and investors.
6. **Good corporate citizenship:** 'a company that demonstrates value to all stakeholders and acts transparently.' While this appears less tangible than the other five key characteristics, it is a fundamental aspect of sustainable success. Good corporate citizenship entails, for example, offering decent jobs, adding value in a local society, responsible tax practices and transparency. If a company performs well in this respect, it safeguards its 'licence to operate' and contributes towards the maximising of value for all company stakeholders.

How DFIs contribute to the financial and sustainability performance of client companies

The study includes a definition of a DFI's contributions to both the financial and sustainability performance of a client. These contributions are categorised as either *collective inherent contributions* that are not specifically targeted at individual clients, yet enable the successful delivery of individual contributions; or *individual client contributions*: interventions or actions by a DFI that go beyond the financing itself and that add value to individual clients.

The full model of a sustainably acting and successful client can be seen in Figure 11, with DEG's contributions shown in the circles to span more general contributions and those that are more client-specific.

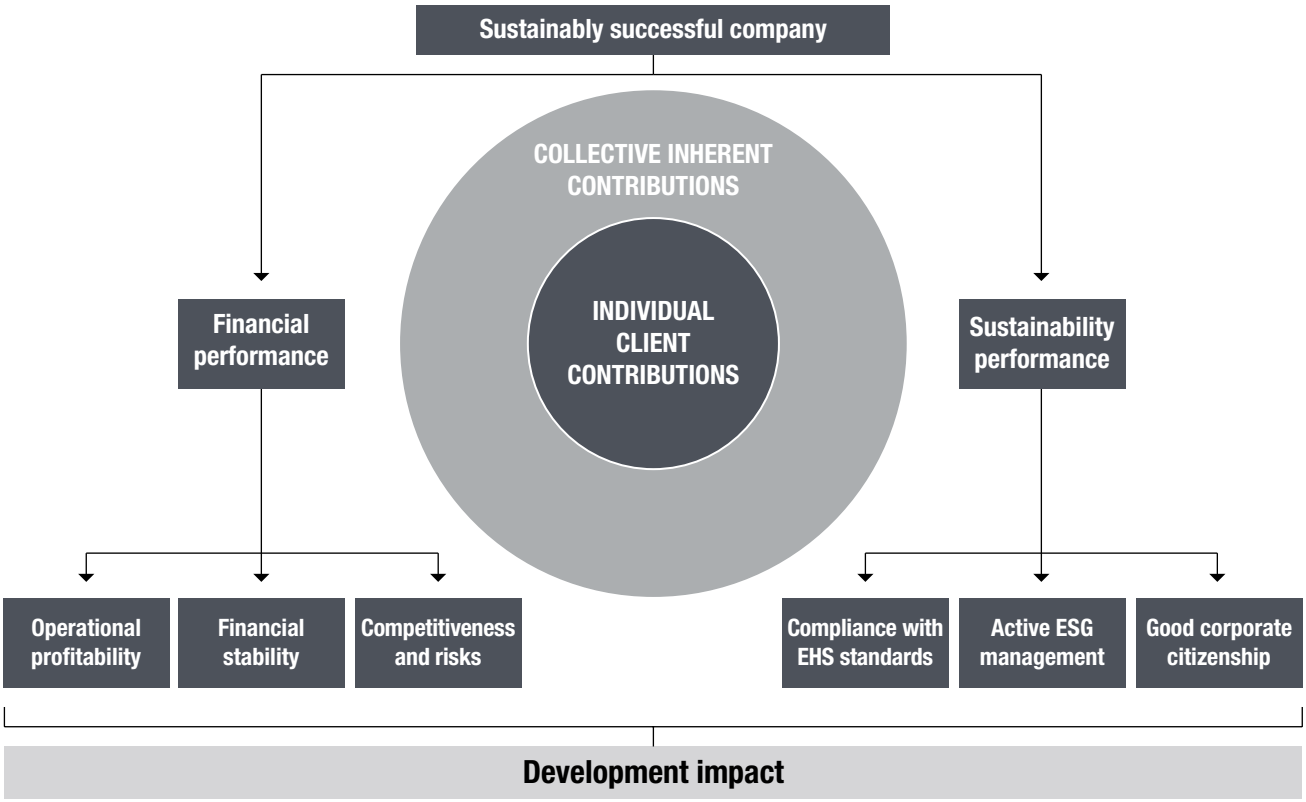
Application of the model to a real company

Figure 12 shows the example of a DEG client: Aminoagro, a Brazilian micronutrient fertiliser company in which DEG invested in August 2013. Aminoagro provides a clear example of the process a company has to go to transform itself from being a family-owned business to a formally run company. When analysing the company on the basis of our definition of the six characteristics of the sustainably acting and financially successful client, two elements were found to need immediate support and one was in need of improvement (shown in red and amber, respectively, in Figure 12).

DEG was able to add value to the company by:

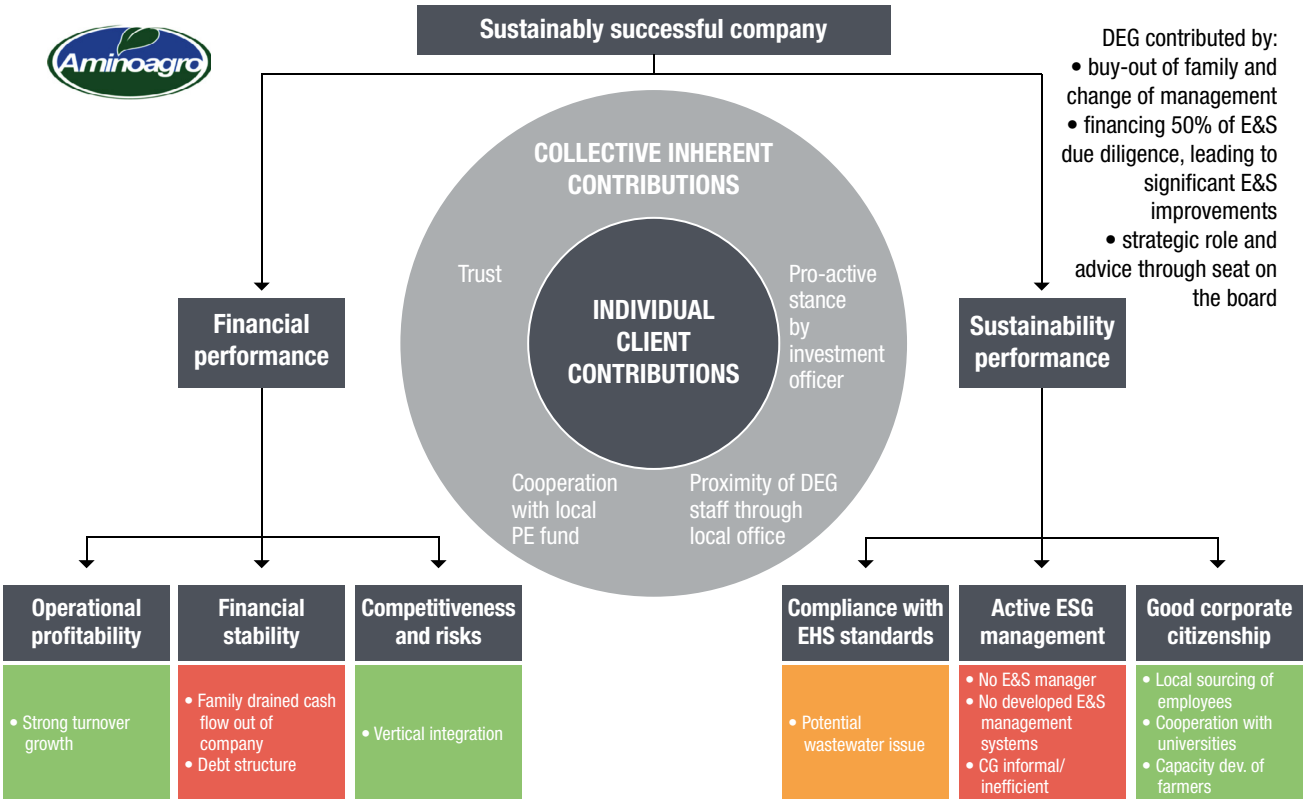
- providing strategic and operational advice to Aminoagro, particularly through its seat on the Board

Figure 11 DEG contributions and sustainable client success



Source: Bertoen and de Bruijn (2015).

Figure 12 Aminoagro – DEG contributions to sustainable client success


Aminoagro
Sustainably successful company
DEG contributed by:
• buy-out of family and change of management
• financing 50% of E&S due diligence, leading to significant E&S improvements
• strategic role and advice through seat on the board
COLLECTIVE INHERENT CONTRIBUTIONS
Trust
Pro-active stance by investment officer
INDIVIDUAL CLIENT CONTRIBUTIONS
Cooperation with local PE fund
Proximity of DEG staff through local office
Financial performance
Sustainability performance
Operational profitability
Financial stability
Competitiveness and risks
Compliance with EHS standards
Active ESG management
Good corporate citizenship
• Strong turnover growth
• Family drained cash flow out of company
• Debt structure
• Vertical integration
• Potential wastewater issue
• No E&S manager
• No developed E&S management systems
• CG informal/ inefficient
• Local sourcing of employees
• Cooperation with universities
• Capacity dev. of farmers

Note: PE fund, private equity fund; CG, corporate governance.
Source: internal dissemination workshop at DEG, based on Bertoen and de Bruijn (2015: 46–54).

- advising Aminoagro on how to professionalise its structure while moving away from a fully family-owned business
- supporting its debt restructuring, and
- funding 50% of its environment and social (E&S) due diligence, which solved the challenges identified for its E&S management.

Conclusion

This study has helped DEG to identify and measure how it contributes to development impact through the sustainable success of its clients. The definition and evaluation of a sustainably acting and successful client were crucial elements leading to the development of DEG's theory of change and its Impact Monitoring and Steering System, the DERa.[1] This process has shifted the perspective from the clients to their development impact on local societies and the wider environment in developing countries.

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1 For more details on DERa, please see 'We measure development outcome' (DEG, 2018).

Harmonisation of impact measurement

18 Harmonisation of impact measurement among development finance institutions and beyond: opportunities for European leadership

San Bilal and Jeske van Seters, European Centre for Development Policy Management

Abstract

Many development finance institutions (DFIs) want to strengthen their frameworks and capacity for the measurement of development impact and engage in initiatives to harmonise impact measurement across DFIs and beyond. The incentives for harmonisation relate primarily to comparability and credibility, the sharing of experiences and best practices, and cost-sharing. Different harmonisation initiatives can flourish in parallel, for different metrics at different levels and at different speeds, while some degree of coordination and complementarity among different initiatives is desirable. Europe is well placed to play a leadership role in harmonisation efforts, with the Association of European Development Finance Institutions (EDFI) and the European External Investment Plan (EIP) as important rallying points.

Introduction

As international financial institutions (IFIs) and DFIs take centre stage on the sustainable development finance agenda, their strategic orientations and operations are coming under increasing scrutiny. Greater transparency and accountability is expected from them, most notably in terms of their achievements. As a result, they must devote more efforts to the development of sound impact measurement methodologies and should coordinate their effort to adopt more harmonised assessment frameworks. European groupings such as EDFI and initiatives such as the European Fund for Sustainable Development (EFSD) could provide the impetus at the European level, in synergy with other international endeavours.

Great expectations

DFIs are expected to play a catalytic role in mobilising significant and sustainable development financing to support the achievement of the 2030 Agenda for Sustainable Development. This requires DFIs to scale up their ambitions and leverage more private finance for greater development impact, including in poorer countries and riskier environments, and for more disadvantaged people. DFIs must also ensure they do not crowd out the private sector but instead crowd it *in*, by contributions that go beyond what is already available in the market, i.e. the additionality principle. In other words, it is not enough for DFI activities to have a positive development impact: what matters is that the intervention itself would not have been possible had it relied on private actors alone.

Matching ambitions with reality checks

The high expectations of DFIs have sharpened the focus on their operations and their development impact. The dual objectives of mobilising more sustainable finance to contribute to the 'billions to trillions agenda' (B2T)[1] and achieving greater development impact may not always complement one another. Operating in riskier and poorer contexts tends to entail a lower leveraging ratio (of public funding mobilising private funding).

At the same time, DFIs must become more transparent on their strategic objectives and means of operations, and more accountable on how these relate not only to the anticipated development outcomes (i.e. *ex-ante* assessment of their engagement), but also to the effective development impact of their interventions (i.e. *ex-post* impact measurement). This is, however, a complex endeavour, in terms not only of defining what to measure (direct and indirect impacts, in both the short and long term), but also how to measure it, taking into account methodological and capacity constraints, data limitations and costs.

Diversity in impact measurement

In this light, many IFIs and DFIs are strengthening their impact measurement frameworks and capacity. However, measurement approaches differ considerably across DFIs, which hinders the comparability and credibility of their claims on impact. As an illustration, some DFIs attribute an increase in jobs fully to their investments, while others measure the total number of jobs supported by adjusting that figure to reflect their investment share.

Steps towards harmonised measurement

Efforts are being made to harmonise development impact measurement across DFIs and beyond, and for different metrics across different groupings. This is the case, for example, at the level of the IFI Working Group on Indicator Harmonization, which seeks to establish benchmarks for private sector investment operations through the Harmonized Indicators for Private Sector Operations (HIPSO). The Common Performance Assessment System (COMPAS) was another framework that enabled multilateral development banks (MDBs) to share experiences and improve their capacity to manage for development results (MfDR).

Broader initiatives, such as the Impact Measurement Project (IMP), also provide platforms and now a global network for practitioners (including IFIs and DFIs) on impact measurement and management. The Organisation for Economic Co-operation and Development (OECD) is another useful forum for the coordination of efforts on developing finance impact measurements, through the IMP global network (IMP, 2018), but also the new OECD Social Impact Investment Initiative (OECD, 2019).

One main driver for these efforts has been the desire to share experiences and best practices. They have also aimed to clarify concepts, adopt common definitions and provide possible guidance on key principles (AfDB et al., 2018).[2] Another incentive is to enhance the comparability, as well as the credibility, of the impact measurement, which requires the support of some form of internationally agreed framework. Other incentives at play can include cost-sharing – given the expense of developing and updating certain impact measurement models – and the ambition to reduce the reporting burden of shared clients.

Challenges

The differences between DFIs in terms of stakeholders, objectives, tools and portfolios may hinder harmonisation efforts. They make it harder to agree on a harmonised approach

1 B2T captures the idea that to fund investment in the Sustainable Development Goals (SDGs) we need to shift from billions of dollars of aid to trillions in investment of all kinds (World Bank, 2015).

2 This is the case for the recently adopted MDBs' Harmonized Framework for Additionality in Private Sector Operations (AfDB et al., 2018).

that fits the interests of all the DFIs involved. In addition, the larger the number of stakeholders involved, the more complicated it can be to reach a meaningful consensus that has direct operational implications. There is a danger in such harmonisation processes that an agreement is reached not around more ambitious approaches and better practices, but around lower common denominators.

Here, different groupings have different advantages and disadvantages. There is, therefore, no single ideal platform for the harmonisation of all metrics. For example, *ad hoc* coalitions on DFIs, such as the CDC Group–Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO)–Proparco coalition on models to measure employment effects have the advantage of being small networks of similar self-selected institutions with common objectives. While the OECD is a much larger and less agile setting, it does have the advantage of covering not only DFIs but also a broader range of stakeholders, including donors and private impact investors, thereby enhancing the scope of harmonisation efforts across the board.

It might be expected that different harmonisation initiatives develop and flourish in parallel, for different metrics at different levels and at different speeds, depending on the objectives pursued. However, this might be at the cost of efficiency and coherence as harmonisation efforts are conducted in a fragmented way and possibly at odds with one another. This may be problematic for comparability and aggregation of development impacts across DFIs, but also cumbersome for DFIs that belong to several initiatives. A certain degree of coordination and complementarity among different harmonisation initiatives seems desirable, as illustrated by the efforts of the OECD to that end.

European opportunities to lead

Europe has an important role to play in harmonisation. Not only is it part of most of the relevant international initiatives, but it can also help to lead the way. The EDFI has played an active role not only as a useful platform for coordination across European DFIs, but also in relation to other major European and international actors. EDFI members have, for example, agreed on Harmonized Environmental and Social Standards, are part of HIPSO, and have agreed a joint framework and methodology with MDBs for reporting on private-finance mobilisation. They could step up their collective efforts to agree on harmonised impact measurement.

One potential rallying point is the EIP with its EFSD, and the EFSD+ proposed for the next European Budget (EU) budget (2021–2027). The EFSD(+) provides an EU guarantee and blended finance channelled through DFIs and IFIs, and vetted by the European Commission. As such, the EIP brings DFIs and IFIs together around a common agenda and framework. The EFSD Regulation 2017/1601 requires the Commission to provide assessments, 'on the basis of indicators', of the aggregated development impact of the EFSD, notably on decent job creation and the eradication of poverty (Article 16).

Such aggregated impact assessment is only meaningful if individual projects and DFIs are assessed via similar indicators based on a common approach, which is not currently the case, as illustrated by the example of job creation mentioned above. In setting up reporting requirements, the EFSD and its successor the EFSD+ are excellent opportunities for DFIs and MDBs – at least for EDFI, the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) – to further harmonise impact measurement in line with these EU objectives on blended finance, both building on and feeding into international initiatives.

Conclusion

Increased attention on the role of DFIs and IFIs to leverage sustainable finance and achieve development impact requires the further strengthening and harmonisation of impact measurement. This is far from a simple exercise, but it is necessary to ensure accountability, learn and adapt. Europe is well placed to play a key role in this endeavour, not least through the EIP and its EFSD(+). Now it is up to European institutions, DFIs and IFIs and other stakeholders to seize this opportunity.

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